An Empirical Investigation

of

The Relationship Between Strategic Planning and Performance

of

Large Construction Firms

by

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ABSTRACT

The purpose of this study was to investigate strategic planning in the construction industry. The primary research objective was to determine if there is a relationship between strategic planning and financial performance of large general contractors in the US. A secondary objective was to identify the strategic planning practices of the top performing firms to facilitate the development of a 'best practices' listing. The constructs used to conceptualize the strategic planning process included planning flow, formality, comprehensiveness, participation, intensity, and integration. Performance was evaluated on both a qualitative and quantitative basis over a five-year period.

The research was designed as an exploratory study involving general builders with an annual volume of greater than fifty million. During the initial phase of the study a self-administered survey was used to collect quantitative performance and planning data from one hundred forty-five firms. Subsequently, personal interviews were conducted with twenty-five of the top performing firms to obtain qualitative data on their planning practices. The research design accounted for the known moderating variables of industry, firm size, construction type, contracting method, and area of operations. Firms practicing strategic planning were comparatively evaluated with firms that did not plan. The strategic planning process was examined to determine which planning variables were associated with superior performance and the top performers were interviewed to facilitate the development of a 'best practices' listing.

The findings are that a vast majority of large builders employ strategic planning, although it is a relatively new practice. Senior management initiates most strategic objectives and planning formality is associated with firm size rather than performance. Larger firms are more likely to develop strategic plans and there is a positive relationship between firm size and planning comprehensiveness. General builders that develop strategic plans have a higher level of financial performance than firms that do not develop strategic plans. Top performers have a higher level of planning intensity and are more committed to the strategic planning process. They also more highly integrate, or operationalized, their strategic plans. In addition, firms that perceive their planning process as effective have better financial performance. The planning practices of the best performing firms are presented, the strategic planning 'best practices' are tabulated, and a planning model is developed.

CHAPTER ONE:

INTRODUCTION

1.1 RESEARCH SCOPE

The concept of strategy has its roots in the military dating back to Sun Tzu, a Chinese general around 400 B.C. (McNeilly, 1996). Its military origins are evident in its definition as the "science and art of military command exercised to meet the enemy in combat under advantageous conditions" (Merriam-Webster, 1998). Alfred P. Chandler in his 1962 book entitled "*Strategy and Structure*" is given credit for introducing the concept of strategy into business (Nelson, 1994). Chandler defined business strategy as the "determination of the basic long-term goals of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals" (1962:13).

Both definitions support that strategy is rooted in choice, and subsequent action, directed toward influencing outcomes. Choice that can determine victory or defeat on the battlefield and success or failure in the business arena. Choice concerning how and when to mobilize resources to compete under conditions favorable to the organization. An organization's strategy is the underlying rationale that governs its tactical decisions (Stahl and Grigsby, 1992). It is manifest by the "pattern" of decisions made by the organization (Mintzberg and Waters, 1985), and every organization has a strategy, whether or not it is expressly defined (Ansoff and McDonnell, 1990).

Quinn submits, "the essence of strategy is to identify the small number of truly essential thrusts or concepts and to consciously marshal the organization's resources and capabilities toward them" (1977:28). Identification of strategic options and determination of strategic choice can be an adhoc procedure, reacting to current engagement conditions, or a systematic and rational process undertaken prior to commitment of organizational resources (Wall and Wall, 1995). Strategic choice can be rooted in the routine extrapolation of present organizational and environmental trends or a systematic and rational analysis to favorably position organizational capabilities in an ever-changing operational environment (Junnonen, 1998). Grant and King (1982) submit that without systematic and rational forethought an organization may not fully evaluate future environmental conditions or appreciate the far-reaching impact of its strategic decisions.

Steiner asserts that "planning is a basic organic function of management" (1969:8) and Drucker notes that strategic planning "aims to exploit the new and different opportunities of tomorrow"

(1980:61). Strategic planning is not only a way to manage change in a firm's operational environment, but a vehicle to create or influence change advantageous to the organization (Oster, 1994; Chinowsky, 2001).

Drucker defines strategic planning as "the continuous process of making present entrepreneurial (risk-taking) decisions systematically and with the greatest knowledge of their futurity; organizing systematically the efforts needed to carry out these decisions; and measuring the results of these decisions against the expectations through organized, systematic feedback" (1974:125). The objective is the attainment of organizational goals beyond those achievable without strategic planning - to optimize long-term organizational performance (Ansoff, 1990; Mintzberg, 1994).

Since strategic planning's mid-twentieth century introduction and application in business, literary scholars and researchers have professed that an organization derives a multitude of benefits from strategic planning. Often cited are increased environmental awareness (Osman, 1992), improved strategic vision (Hensey, 1986, 1991) and organizational commitment (Huang, 1997), enhanced communication and integration of firm strategy (Wilson, 1994), and optimized deployment of organizational resources (Male and Stocks, 1991). The implication of these cited benefits is improved organizational performance and in a business setting ultimately manifested in enhanced 'financial' results.

Strategy development and implementation requires a substantial investment of organizational resources (Ansoff, 1990). It can often necessitate strategic re-deployments of organizational resources adversely affecting near-term financial performance in anticipation of greater long-term rewards (Clough and Sears, 1994). But does strategic planning actually improve long-term financial results? Do the perceived qualitative benefits facilitate improved financial performance of the organization? For the past three decades, researchers have been attempting to answer these questions.

The results of studies investigating the planning-performance relationship have been mixed. Some researchers (Thune and House, 1970; Welch, 1984; Papke-Sheilds, 1997) purport that strategic planning enhances financial performance while others, (Rue and Fulmer, 1974; Wood and LaForge, 1979; Fredrickson & Mitchell, 1984) conclude there is at best only limited support for a positive relationship. At the other end of the spectrum are studies concluding that no relationship exists between planning and performance (Robinson & Pearce, 1983; Rhyne, 1987), or even that planning has a negative impact on the financial results of an organization (Fredrickson, 1980). Considering the complexity of the planning-performance relationship and methodology deficiencies inherent in many of the studies, the inconsistent results of past efforts are not

surprising (Pearce, Freeman, & Robinson, 1987). In addition to insufficient methodological rigor (Mintzberg, 1994) most of the studies examined firms exclusively in the manufacturing or banking sector. Construction firms were rarely included in the sample, and never exclusively examined in a study using quantitative performance data.

While the results from past research efforts are inconclusive, support is provided for a positive planning-performance relationship in industries delivering a complex product or service (Papke-Shields, 1997; Kukalis, 1989) in an environment characterized as uncertain (Lindsay & Rue, 1980), dynamic (Papke-Shields, 1997; Thune & House, 1970; Wilson, 1994), competitive (Dess, 1987), and highly fragmented (Galbraith and Schendel, 1983). Conditions that can be considered characteristic of the construction industry (Male & Stocks, 1991; Junnonen, 1998).

Several studies have investigated the use of strategic planning in the construction industry. Hall (1994) and Weston (1996) examined small firms in the UK and found limited use of formal strategic planning to establish and implement strategic objectives. Their findings were similar to those of small firms in manufacturing (Robinson and Pearce, 1983; Sexton and Van Auken, 1985; Micheal, 1990). Because of the intimate operational involvement of the entrepreneur-owner and lack of organizational complexity, smaller firms are less likely to employ an explicit strategic planning process (Wilson, 1994).

Conversely, studies investigating the planning practices of larger contracting organizations in the United States and the UK found widespread use of some form of formal strategic planning (Sayid-Rayab, 1981; Hillebrandt and Cannon, 1990; Hasso, 1996; Chinowsky, 2001). These studies found strategic planning played a significant role in the formulation and implementation of strategic intent in some construction organizations. However, in many firms the planning process was not fully developed or implemented (Hillebrandt and Cannon, 1990; Hasso, 1996; Chinowsky, 2001). Strategic planning systems for contractors were generally 'under developed' and often a perfunctory process of extrapolating past trends. Additionally, they were typically found to be a process that was internally focused on operational issues rather than a strategic analysis of the firm's operating environment and organizational objectives and strategies (Skitmore, 1989; Ramsay, 1989; Junnonen, 1998).

1.2 RESEARCH OBJECTIVES AND DESIGN CONSIDERATIONS

Construction companies deliver a unique and exceedingly complex product and service in a volatile, highly competitive, and extremely fragmented marketplace (Male & Stocks, 1991; Langsley, 1987; Chinowsky, 2000). Environmental conditions present in the construction industry

are similar to those of studies involving other industries where a positive relationship between strategic planning and performance has been found to exist. In addition to the limited empirical support, industry scholars stress the need for, and benefit of strategic planning. They submit that the process provides benefits for both the individual company and the industry in general. Scholars and researchers submit that a properly developed strategic focus not only benefits the organization, but also encourages firms to evaluate and address the long-term issues facing the industry (Weston, 1996; Ramsey, 1989; Hillebrandt et al., 1995; Chinowsky, 2001).

Investigations of firms in the construction industry have found that large construction organizations have generally adopted strategic planning. However, they have also concluded that many contractors have yet to fully develop their planning and/or implementation process (Hasso, 1996; Chinowsky, 2001). The proposition submitted by industry scholars and researchers is that strategic planning provides financial dividends. Firms developing strategic plans have better performance. Additionally, they submit that organizations with a more highly developed strategy formulation and implementation process have improved organizational performance (Pienaar, 1988; Hillebrandt and Cannon, 1990; Hasso, 1996; Chinowsky, 2001).

However, there is very 'tentative' empirical support for a strategic planning-performance relationship in the construction industry. Research evaluating strategic planning in construction has been limited to studies examining subjective measures of performance (Pienaar, 1988), techniques of plan formulation (Edum-Fotwe et. al., 1994), organizational 'factors' exhibited by successful firms (Konchar and Sanvido, 1999), and/or the identification of strategic management practices (Chinowsky, 2000, 2001).

In the construction industry there is a 'knowledge gap' concerning the relationship between strategic planning and performance. In addition, there is a need to identify the most effective strategic planning process – the 'best' practices associated with superior performance. To address this 'knowledge gap' this study is designed as a cross-sectional, exploratory study of US construction contractors to: 1) determine to what extent, if any, a planning-performance relationship exists, and 2) develop a strategic planning 'best practices' – what planning approach is most effective. The first phase of the study will be a rationalist/scientific investigation of the relationship between planning and performance using quantitative data based upon *actual* financial performance data from the participants. The second phase of this study will be a qualitative investigation into the planning practices of the 'top' performers identified during the initial phase of this study. This phase of the research will seek to discover the participants' values, perspectives, and approach to the development and implementation of organizational strategy with the ultimate objective of developing a best practices listing.

The primary objectives are to:

a) Investigate the strategic planning - financial performance relationship to determine if strategic planning is associated with superior financial performance.

b) Investigate the relationship between planning process, or approach, and financial performance to determine what method(s), or approach(s), to strategic planning is associated with superior financial results.

This study will comparatively evaluate firms that strategically plan with firms that do not employ strategic planning. It investigates whether an enhanced evaluation and understanding of a firm's operating environment and internal capabilities improves long-term economic performance. This effort will examine the process that firms utilize to develop and implement their strategic initiatives and investigate the methods utilized by firms to evaluate the progress toward their strategic objectives. The primary objective of this research effort is to determine if there is a relationship between a firm's strategy development and implementation process and organizational performance. The purpose of the research is to determine if 1) there is a relationship between strategic planning and performance, and 2) what are the planning practices that lead to superior performance (best practices). Specifically, the research questions to be investigated are:

Is there a relationship between strategic planning and the financial performance of large general contractors in the United States of America?

What are the strategic planning practices that lead to superior financial performance of large general contractors in the United States of America?

The operational definition of strategic planning for this research effort will be the definition developed by Drucker:

> Strategic planning is the *"process of making present entrepreneurial (risk-taking) decisions systematically and with the greatest knowledge of their futurity; organizing systematically the efforts needed to carry out these decisions; and measuring the results of these decisions against the expectations through organized, systematic feedback" (1974:125).*

This operational definition recognizes that strategic planning has three primary elements: plan formulation, implementation, and evaluation/control. The constructs used to characterize strategic planning for this study will incorporate these three elements. Building upon the work of Papke-Shields (1997), Segar and Grover (1998), and Fredrickson and Mitchell (1984) the constructs used to conceptualize the strategic planning process will include planning *flow, formality, comprehensiveness, participation, intensity, and integration.*

Planning *flow* defines the source(s) of strategic initiatives for the organization while *formality* is a measure of the structure and documentation of the plan development, implementation, and control process. Planning *comprehensiveness* is characterized as the degree of situation diagnosis, alternate generation, alternate evaluation, and decision integration (Fredrickson, 1980). Planning *participation* addresses the number and diversity of participants, the degree of their involvement, and the quality of coordination and communication amongst the parties (Dyson & Foster, 1982; Papke-Shields, 1997). Planning *intensity* embodies the concepts of planning and updating frequency, planning horizon, resource commitments to the planning effort, and management commitment to the strategy development and implementation process (Papke-Shields, 1997; Faulkner et. al., 1995). Plan '*integration*' is a measure of the operationalization of an organization's strategic plan (Wheelen, 1998). Criteria to evaluate each of the constructs will be developed based upon the previous work of industry scholars. Additionally, relevant research data and methodology from past studies of the planning-performance relationship will also be incorporated.

Firm performance will be evaluated on both a qualitative (planning effectiveness) and quantitative basis (financial measurements). Similar to Wheelen (1998), Segar and Grover (1998), and Papke-Shields (1997), this study will incorporate the respondent's qualitative measurements of planning effectiveness, including 1) the 'contribution' that strategic planning provides the organization, and 2) the 'improvement' in organizational capabilities resulting from the planning effort.

Most construction organizations based in the US are privately held and financial data, with the exception of annual revenue, is not readily available (CFMA, 1999). Due to the anticipated sensitivity of financial disclosure, performance data will be limited to revenue growth and percent return on investment (ROI). This financial performance data is similar to that used in other research efforts (Chakravarthy, 1986; Layton, 1991; Pekar and Abraham, 1995) and is purported to be appropriate and suitable measures of financial performance (Jackson, 1999).

Hypothesis and relationship testing will typically involve one of three approaches: a) t-tests assuming two samples of unequal variance, b) testing of a sample's mean versus an hypothesized mean, or c) the correlation between two variables.

The investigative questions to be evaluated in support of the research question(s) are:

a) Do large general contractors in the US that practice strategic planning have performance, as measured by *revenue growth,* superior to that of large general contractors that do not practice strategic planning?

b) Do large general contractors in the US that practice strategic planning have performance, as measured by *return on investment,* superior to that of large general contractors that do not practice strategic planning?

c) What relationship, if any, exists between planning *flow, formality, comprehensiveness, participation, intensity, and/or integration* and the *revenue growth* of large general contractors in the US?

d) What relationship, if any, exists between planning *flow, formality, comprehensiveness, participation, intensity, and/or integration* and the *return on investment* of large general contractors in the US?

e) What are the strategic planning practices of large general contractors in the US with the best performance – the 'best practices'?

For this study, 'large general contractors' are defined as contractors based in the United States of America with an annual revenue volume of greater than fifty million dollars that perform more than fifty percent of their annual revenue in the construction category of 'general building'.

This research will be a cross-sectional study of the strategy development and implementation practices of large general contractors operating in the US. Contractor planning practices will then be correlated with financial performance over the past five years. The research design will be developed to remedy methodological deficiencies common in past research efforts of strategic planning and where possible, will mitigate or account for intervening and moderating variables known to have an influence on firm profitability. These contingency variables that will be accommodated in the research design include industry, firm size, project type, contracting method, and geographical factors.

1.3 EXCLUSIONS AND LIMITATIONS

This research effort will specifically focus on strategy formulation, implementation, and evaluation. These are the essential elements of 'strategic planning' as defined by Drucker (1974) and Steiner et al. (1983). They are also key elements of 'strategic management' as defined by Ansoff (1990) and Wheelen and Hunger (1998). The distinction between the two concepts generally relates to scope. The concept of strategic management is purported to incorporate strategic planning, but places added emphasis on strategic thought and action during implementation and periodic evaluation of strategic intent. It is the process of managing strategic change on a daily basis by thinking and acting strategically (David, 2001; Wheelen and Hunger, 1998; Chinowsky, 2001).

Researchers have found that evaluating and correlating 'strategic thought' and the concept of 'strategic management' with firm performance is a difficult, if not impossible, task to accomplish. Mainly because of the complexity of the two concepts, the difficulty of isolating them from 'general management' actions, and the multitude of variables involved in comprehensively assessing the concept of 'strategic management' and its relationship to firm performance (Morgan, 1999; Pienaar, 1988).

This research effort recognizes the difficultly of evaluating the concept of strategic management. Therefore, the scope will be limited to an evaluation of the process for strategy formulation, integration and implementation of strategic intent, and a firm's practices for feedback and evaluation concerning its strategic objectives. It will not attempt to comprehensively assess management's strategic thought process or strategic management actions except to the extent of those embodied in the concepts previously noted as relevant to this study. In addition, this research effort will not attempt to assess the appropriateness of the specific strategy or strategies being pursued by the firms included in this study.

In addition, several studies have found organizational culture to be associated with firm 'success' (Collins et. Al., 1994; Long, 1998; Konchar and Sanvido, 1999). These studies do not quantitatively define 'success' nor conclude a cause-effect relationship between the two variables. Rather, these researchers purport a strong *association* between organizational culture and the long-term performance of the firm. Due to the lack of evidence of a cause-effect relationship, and the difficulty in 'defining' culture or isolating its effect, the influence (if any) of organizational culture will not be considered in this research effort. Therefore, the extent of any cause-effect relationship, if one exists, should be considered a limitation of this study.

1.4 CHAPTER SUMMARY

Chapter Two provides an overview of the construction industry in the United States of America (USA). The uniqueness of the industry and its production methods are examined. Market characteristics are defined and the competitive environment for contracting entities is investigated. Aggregate financial results and performance relationships relative to size and type of work are explored. Lastly, contractor strategies and industry trends are examined.

Chapter Three examines the concept of strategy and its formation. It investigates corporate, business and functional level strategy and the relationship they have with each other, an organization's structure, and the firm's operating environment. This chapter then reviews the synoptic and adaptive models for strategy formation.

Chapter Four investigates the strategy formulation and implementation process. It conceptually defines strategic planning and examines its evolution and application within the construction industry. This chapter reviews the basic elements of the strategic planning process, including formulation, planning participation, implementation, and control.

Chapter Five examines the relationship between strategic planning and organizational performance. It presents the qualitative benefits of strategic planning purported by literary scholars and researchers. In addition, it examines the conclusions and methodology of empirical studies completed over the past several decades on the planning-performance relationship.

Chapter Six reviews the constructs utilized to define 'strategic planning' and 'performance' for this study. The hypothesized relationship between each of the strategic planning constructs and firm performance is also presented.

Chapter Seven presents the methodology utilized for this research effort. It reviews the methodology for sample selection, instrument design and investigative questions, pilot testing, and data collection. It examines the moderating variables that must be accommodated, or accounted for, in the research design. It reviews the sampling frame, unit of analysis, and the targeted respondent. The measurement constructs for strategic planning and organizational performance are identified and empirical support for their use is reviewed.

Chapter Eight examines the data collected and reviews the findings of this research effort. The research data is analyzed and hypotheses are developed and statistically evaluated.

Chapter Nine reviews the generic strategy and planning practices of the best performing contractor firms. This chapter also provides a listing of the 'best practices' for strategy development and implementation.

Chapter Ten presents the conclusions supported by the analysis and statistical testing of the data collected during this research effort. It compares the conclusions reached from this research effort with past investigative studies on the planning-performance relationship. This chapter also provides recommendations for future investigative efforts.

CHAPTER TWO:

THE CONSTRUCTION INDUSTRY

2.1 CHARACTERISTICS OF CONSTRUCTION

Many authors and scholars have identified distinctive characteristics of the construction industry and the production method employed to deliver the end product. Characteristics including the ease of entry and low capital requirements (Cough and Sears, 1994), the practice of competitive tendering for a unique product prior to production (Rwelamila et al., 1997), or the long duration of production (Dalle and Potts, 1999). Others cite the capital goods nature of the product and the forces influencing demand (Male and Stocks, 1991), the use of a 'temporary' plant with an uncertain and changing environment for production (Lifson and Shaifer, 1982), or the adhoc cross-functional organization required for delivery of the product (PMI, 1996).

While many of these characteristics may be present in other industries, Hillebrandt (1985) submits that the construction industry has four general characteristics that appear in unique combination in the industry. They include the physical nature of the product, the method of delivery, the factors determining demand, and the process used to establish price.

The final construction product is a unique undertaking for a specific client. It generally represents a major investment for the owner requiring involvement in the production process. The final product is typically large and heavy making centralized production difficult or impossible resulting in geographically dispersed production (Hillebrandt, 1985). The product is produced using "temporary" plants at each project location with actual production often exposed to the 'elements' for a large portion of the construction duration. It is labor intensive and during production the workforce is exposed to numerous and changing hazardous conditions. The final product is often technically complex and incorporates a large number of components manufactured in other industries (Dalle and Potts, 1999).

The 'project' method of delivery is used for production of the end product. The Project Management Institute (PMI) defines a 'project' as "a temporary endeavor undertaken to create a unique product or service" (PMI, 1996:4). Stuckenbruck defines a project as "a combination of human and non-human resources pulled together in a temporary organization to achieve a specified purpose" (1981:1). A construction project involves assembling an ad hoc, cross

functional group of individuals, from multiple business organizations, who often have differing project understanding and/or objectives. The "project" organization is assembled specifically for production of a unique final product and disbands upon completion (Lifson and Shaifer, 1982; PMI, 1996).

The project method of delivery requires extensive pre-planning and pervasive monitoring and control systems during production. It necessitates frequent communication with multiple individuals and organizations to coordinate production and refine project scope (Lewis, 1997). Hillebrandt (1985) submits that the nature of the product, combined with the delivery method, largely determines the structure of the construction industry.

The construction product is generally not a consumable good, but rather a capital good with a long life that represents an investment in facilities or infrastructure (Kavanagh et al., 1978). Demand is heavily influenced by the economic state of the economy and governmental policy (Rwelamila et al., 1997). And fluctuation of demand, coupled with the product's long life and length of production, has significant implications for the industry (Hillebrandt, 1985).

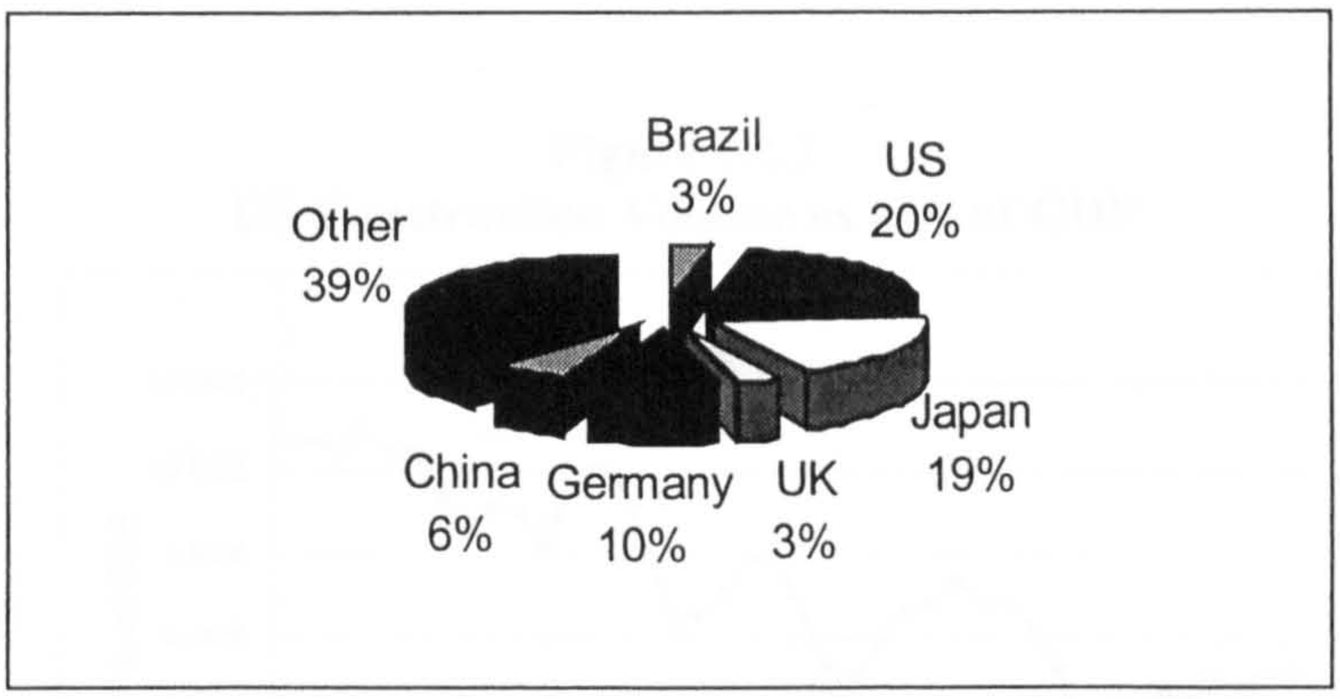
Since each project is unique, price is typically determined in advance specially for each construction effort. Pricing requires cost assembly for a multitude of resources, from numerous organizations, to establish a production cost to deliver a product that has not been produced before. Whether by competitive bid, or negotiation, project pricing is often conducted in a highly competitive environment (Gould, 1997).

2.2 CONSTRUCTION MARKET

The construction industry is one of the largest and most important industries in any national economy and is often considered a barometer of a nation's economic health (Male and Stocks, 1991). *Engineering News Record's* 1998 survey of more than 150 nations worldwide estimated the global construction market in excess of 3.22 trillion US dollars (ENR, 1998). The six largest national construction markets combined for greater than 60% of the annual construction volume worldwide.

As depicted in Figure 2.2.1, the largest market was the US at 20.2% of global construction, followed by Japan (19.4%), Germany (9.8%), China (5.7%), UK (3.3%), and Brazil (3.2%). From a regional perspective, Asia had the largest construction volume at 1.125 billion, followed by Europe (996b), North America (724b), and Latin America at 239 billion (US).

Figure 2.2.1
Percentage of Annual Global Construction Volume (1998)



2.2.1 US Construction Market

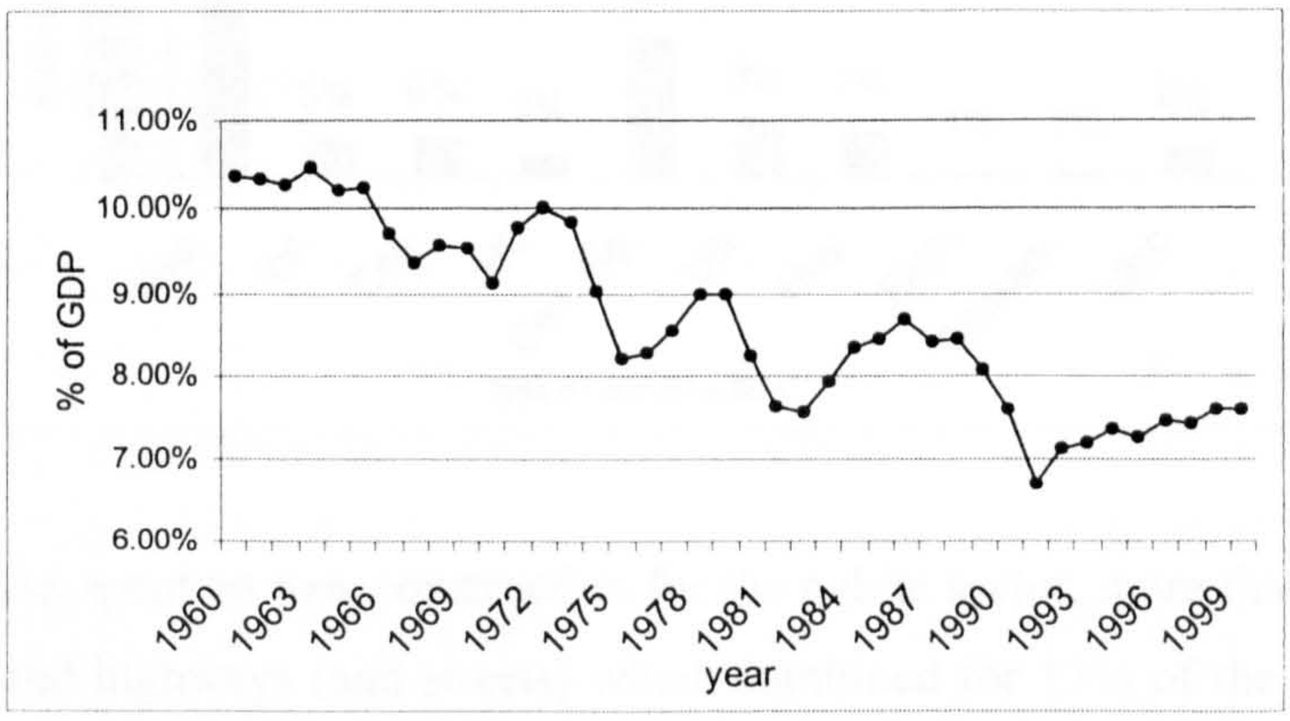
According to the US Bureau of Census the US construction market has grown in current US dollars from 54.7 billion in 1960 to 705.3 billion dollars of 'new work' installed in 1999. The US Bureau of Census classifies the cost of 'new work' to include the contractor's labor, material, equipment, overhead, and profit in addition to architectural and engineering fees and the owner's miscellaneous project costs, interest, and taxes paid during construction on new facilities or renovation of existing.

Economic prosperity is generally associated with a high level of construction spending. Conversely, during recessions or an economic slow down construction spending is often depressed because construction is generally considered an investment, rather than a consumable, and can be postponed during times of reduced demand (Rwelamila et al., 1997). This relationship between a nation's economic performance and construction volume was the case during the US recessions of the middle 70's, early 80's, and in 1991. During the 1974/1975 recession the volume of new work in the US declined 1% on an annual basis and in 1991 the decline was 9%. Similarly, in the early 80's annual growth in new construction volume decreased to approximately 3% after growing by double digits in the late 70's prior to the recession. As of the year 2000 the economic expansion in the US had extended to nine years, the longest in US history (Korman, 2000a). During that nine-year period the value of new work in current US dollars has increased seventy-five percent (75%) from 442 billion to 750 billion (US Bureau of the Census).

With the exceptions of the recessions in 1974/1975 and 1990/1991 the current value of construction steadily increased during the 40 year period from 1960 to 1999. However, during

that period the annual US construction volume, as a percent of gross domestic product (GDP), decreased from slightly over 10% of GDP in 1960 to 7.6% in 1999 (see Figure 2.2.2).

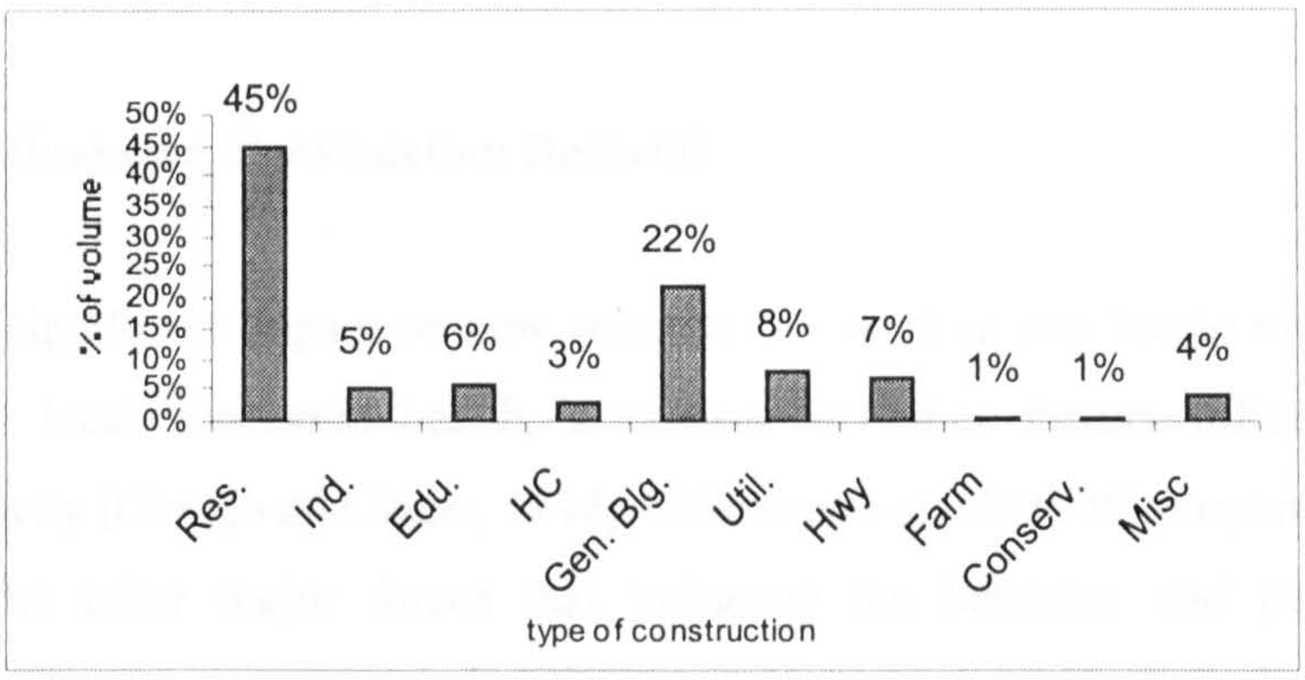
Figure 2.2.2
US Construction Volume as a % of GDP



While the general decline of new construction as a percent of GDP has been relatively consistent over the past forty years, as evidenced in Figure 2.2.2 there has been a noticeably steep decline during periods of economic recession. This is in large part due to the relationship between public and private work in the US. Private work in the US accounts for approximately 75% (78.2% in 1999) of all new work and during periods of reduced national economic performance private investment is often postponed whereas public expenditures may be increased to stimulate the economy (Rwelamila et al., 1997). A case in point is the US recession in 1991 when private construction decreased 13% while public US expenditures increased 2% (US Bureau of the Census).

A breakdown of new work from the US Bureau of Census for 1998 is shown in Figure 2.2.3. The largest category was residential construction at 294 billion, or forty-five percent of all new work. Almost all (98.5%) of this residential work was for the private sector. The second largest category of work was 'general building' at twenty-two percent (22%). The vast majority (81%) of this category was for office, hotels, retail and other commercial work for the private sector with the balance for administrative buildings, prisons, police and fire stations, courthouses, civic centers, and passenger terminals in the public sector. The 'utilities' classification, comprising 8% of new work, includes telecommunications, railroads, electric power, gas, and petroleum pipelines. Again, the majority (72%) of this work was for private owners.

Figure 2.2.3
Breakdown of New Work in the US (1998)



Of the total 145 billion spent on new construction for the public sector, more than half (51%) was spent on education and highways (and streets) which combined for 13% of the new work in the US. The two remaining categories of significance are healthcare (HC) expenditures at 3% and industrial construction comprising 5%, of which both are primarily funded by the private sector at 77% and 97% respectively (US Bureau of the Census).

The results for the nine-year period from 1990 to 1998 are very similar to the breakdown of new work for 1998 (Appendix A). All but two categories of work in 1998 are within one percentage point of their nine-year average. The only categories of work exhibiting a consistent trend are residential construction which increased from a recessionary low of 39.4% in 1991 to 44.2% in 1998 and industrial construction which decreased from 6.4% of all new work in 1992 to 4.8% in 1998. The other notable trend is an increase in the percentage of private construction from a recessionary low of 72.5% in 1991 to 78.2% of all new work in 1998.

National economic performance and construction statistics are not necessarily indicative of regional, state, or local performance. A prime example is the state of California during the late 80's and early 90's. While the absolute value of national construction decreased 10% from 1989 to 1991 construction in California fell 50%, and by 1994 when national volume was 17% above its 1989 levels, new work in the state of California was still 48% below its 1989 level (Tulacz, 1994).

The summarized national construction data presented also conceals variations and trends in the construction volume of 'sub-categories' of work. For example, private sector construction of new hotels and office buildings did not return to 1990 levels of expenditures until 1996 and 1997 respectively while total US construction returned to 1990 levels by 1992, one year after the national economic recession. In addition, private expenditures in electric and gas utilities and

public expenditures in education actually increased during the economic slowdown in 1991 (US Bureau of the Census).

2.2.2 Factors Influencing Construction Demand

While the most significant impact on new construction work in any locale may be the national, regional, and/or local economic health, a number of other factors influence the level of construction activity (Clough and Sears, 1994). Hillebrandt et. al.(1995) purport that in addition to the economy, the other major forces that influence the behavior and performance of the construction industry are governmental policy, social trends, technological changes, and changes brought on by the industry itself. Maloney (1997) classifies the influential external forces as demographic, economic, legal and regulatory, political, social, technology, and the changing customer needs and expectations. Support for these assertions is evidenced in the US market.

In 1994 Tulacz noted that several key individuals in the construction industry were concerned that the North American Free Trade Agreement (NAFTA) that relaxed trade barriers between Canada, Mexico, and the US, would lead to a reduction of manufacturing facilities being constructed in the US. It is difficult to pinpoint the true effect of this change in governmental policy. However, construction of industrial and manufacturing facilities in 1999 was below 1994 levels while the total current value of 'all' new construction in the US increased 36% during this six year period (US Bureau of the Census, Appendix A).

Continued uncertainty over federal funding of healthcare costs limited the scope and development of medical facilities in the early 1990's. During this period, private heath care construction which accounts for 75% of all health care expenditures remained essentially 'flat' (Tulacz, 1995a).

Additional forces that can have a national, regional, and/or local impact on construction volume include commodity pricing, currency valuation, (Tulacz, 1995b), federal regulation (Tulacz, 1994), and natural disasters (Krizan, 1995). In 1999 highway and street construction surged 13.1% because of increased federal funding created by the passage of TEA 21, a federal funding bill for road improvement raising the level of public expenditures for road work by greater than 40% over 5 years (Krizan et al., 2000).

Rwelamila et. al. (1997) and Langford and Male (1991) all point to the impact of governmental monetary policy and its resulting influence on the supply of credit for construction expenditures. Small shifts in interest rates can impact development intentions, and often have the greatest impact on residential construction (Chinowsky, 2000). Lending some support to this assertion is

the 44% reduction in US housing starts when interest rates spiked in the early 80's. Even the more modest rate increases in early 2000 had the housing industry lowering its expectation of future sales (NAHB, 2000).

While there are numerous forces that impact the variability of construction demand, Male and Stocks (1991) argue that most of the variations are experienced in construction sectors and/or locally, rather than at the aggregate level of the industry. The past performance of the US construction industry lends support for this assertion. The frequency and magnitude of the variations exhibited by project type and locale are amplified when compared to the industry as a whole over the past 40 years (US Bureau of the Census).

2.3 COMPETITIVE ENVIRONMENT

Junnonen classifies the construction industry as a highly competitive, mature industry, with low growth and an expanding level of turbulence (1998). It is an industry where the 'end product' is often produced by many separate firms making it difficult for a contracting entity to differentiate its contribution to the total real estate development process (Yates et al., 1991). These conditions promote keen competition within the industry and encourage contractor selection based heavily upon a firm's tendered price for the construction product (Weston, 1996).

2.3.1 US Construction Firms

The US Bureau of the Census reports there were 1.9 million construction companies in the US as of the turn of the century. Considering the volume of new work in 1999 was 705 billion the average annual US contractor volume was $370,000 or less than the median price of three new homes in the US.

Kangari (1987) submits that the large number of contractors in the industry is because of the relative ease of entry. Licensing is not universally required by all states and qualifications for those that do require licensing are generally not considered rigorous. Additionally, the required financial investment is minimal when compared to other industries (Clough and Sears, 1994). Others cite dispersed production and method of product delivery as additional primary factors (Male and Stocks, 1991; Kangari, 1987). A testament to the ease of entry is that in 1997, the construction industry had more start-up companies than any other industry in the US (Bureau of the Census).

Through federal, state, and local legislation and enforcement the US construction industry has continued to experience increased regulation primarily designed to protect public health and safety. Between 1970 and 1996 regulatory personnel almost doubled and regulatory spending increased over one thousand percent (Gould and Joyce, 2000). Dorsey characterizes the US construction industry as "regulated capitalism" (1997:3). Both the final product and the production process are required to conform to a multitude of laws and regulations pertaining to land use, environmental issues, product application, construction methods, and the health and safety of the construction worker, building occupants, and the public at large (Clough and Sears, 1994). Enforcement is a combination of local, state, and federal agencies that can result in duplication of effort and differing interpretation of requirements. However the industry continues to take steps to mitigate the dampening effect that industry regulations, and the fragmented enforcement, may have on real estate development. Recent actions include the streamlining of the project permitting process (Greene, 1997) and the development of a single national model building code (Winston, 1999). Overall, the US development and construction industries are generally considered 'open' industries with limited restraints or requirements for entry (Male and Stocks, 1991).

Almost 80% of all contractors in the construction industry are legally organized as sole proprietorships or partnerships and 166,000 (9.1%) are owned by minorities or women (US Bureau of the Census). In addition, the vast majority of construction firms are privately held firms. The Construction Financial Managers Association (CFMA) annually conducts a national survey from a population comprising its 6,000 members, *Engineering News Record's* listing of contractors with greater than one million in annual revenue, and Dun & Bradstreet's list of contractors with revenue of greater than twenty-five million. Their survey results revealed that 96% of all contractors were privately held, 1.7% were public companies, and 2.3% had foreign ownership (CFMA, 1997). Even a majority of the twenty largest construction firms in the US are not publicly traded firms (ENR, 2000).

2.3.2 Market Fragmentation and Niche Focus

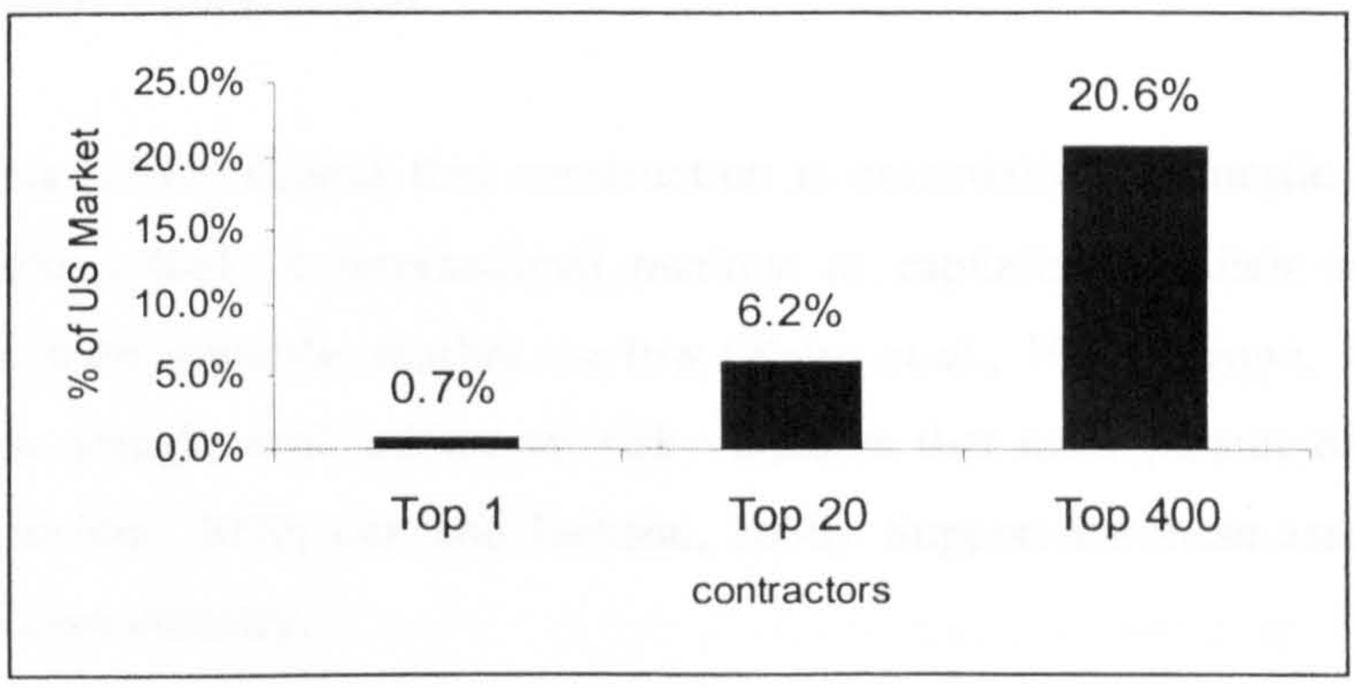
The US construction market, similar to many construction markets worldwide has no single firm, or small group of companies, with a dominant national market share. The industry is highly fragmented and dominated by a large number of small firms and a small number of large firms (Clough and Sears, 1994, Male and Stocks, 1991).

Engineering News Record (ENR) is a construction periodical published by McGraw-Hill that has been covering the US construction industry since 1874. Each year ENR collects data on contract

awards and revenue from contractors operating within the US and publishes a "Top 400 Contractor" ranking. This ranking was based upon new contract awards until 1994 when it was shifted to a ranking based upon annual revenue. These contractor rankings developed by ENR provide support for Clough and Sears' assertion concerning the fragmentation of the US construction market. As shown in Figure 2.3.2, in 1999 the largest amount of domestic work performed by any contractor was 0.7% of the 705 billion of new work in the US. The top 20 contractors put-in-place 6.2%, and the top 400 only 145 billion, or 20.6% of all new work.

Palmer et al. (1995) claims that the construction industry is made up of 'specialists' in order to maximize organizational strengths and minimize project risk. Contractors tend to limit their focus to a relatively narrow range of project types (Clough and Sears, 1994; Sommerville, 1995).

Figure 2.3.2
Market Share of the Largest US Contractors



The US construction market is commonly broken down into a number of categories based upon the 'type' of work performed. Clough and Sears (1994) classify the market into four main sectors – residential, building, engineering, and industrial. *Engineering News Record* (ENR) uses six categories (general building, manufacturing, power, water and sewer, transportation, and hazardous waste) when they collect data for their annual contractor ranking.

An examination of the data collected during ENR's 1999 rankings lends support to Clough, Sears, and Palmer's assertions, at least concerning the 400 largest contractors operating within the US. Ninety-one percent (91%) of the contractors reported that greater than 50% of their work fell within one of ENR's six categories, and almost half (49%) indicated that 90% of their work was from a single 'type', or category. The degree of specialization extends even further upon examination of the 'sub-categories' of a construction type. For example, in ENR's 'general building' category, many contractors reported 100% of their work was residential while others

had 93% in healthcare, 70% in warehouse and distribution, or 67% of their annual volume in the construction of educational facilitites (ENR, 2000).

Contractor specialization, or niche focus, is necessary because each type of work often requires substantially different equipment, materials, labor composition, supervisory skills, technical expertise, management abilities, corporate support, and/or financial considerations (Cough and Sears, 1994; Eaton, 1999; Male and Stocks, 1991). This 'strategic positioning' consolidates the competence of the firm and helps develop a fit amongst its operational activities (Ngowi et al., 2000). Eaton (1999) also claims that contractor specialization is necessary for the organization to respond to the increasing sophistication and production demands of current and prospective clients. He notes that when contractors do perform more than one type of work the contractor's organization is often segmented into specialized business units for each project type.

2.3.3 International Construction

Male and Stocks (1991) submit that construction is essentially a domestic industry and multi-national contractors look to international markets to capitalize on their expertise only when opportunities in their domestic market are low (Yates et al., 1991; Ngowi, Iwisi, & Rwelamila, 2000). It is also fraught with additional risk variables that limit pursuit of international work opportunities (Siehler, 2000; Lan and Jackson, 2000). Support for these assertions is evident in the US construction industry.

The combined volume of construction completed in 1999 by the 400 largest contractors in the US was 175 billion. Of this total revenue 30 billion, or 16.9%, was work performed in international markets. Twenty-two percent (22%) of the top 400 contractors reported that a portion of their revenue was obtained internationally. However, the top 3 engineering and construction (E&C) firms did 57% of the reported international work and the twenty largest contractors combined for 86% of all the international work performed by the Top 400. Only fifteen of the lower 200 contractors performed any international work at all and that volume totaled less than 0.5% of the international work performed by the top 400 (ENR, 2000).

Isolating general contractors, or those contractors reporting a majority of their work as 'general building', reveals contractors in this category performed less than 5% of the international work completed by the top 400 and international work comprised less than 2% of their annual revenue. International work performed by ENR's top 400 is largely constructed by E&C contractors operating in the international 'industrial and petroleum' market, the three largest of which reporting a majority of their work as international.

The method of reporting used by ENR for its rankings however belies the international influence on US contracting. Five of the top 20 firms are actually US subsidiaries of foreign organizations, yet their domestic construction in the US is not reported as international construction in ENR's rankings. Interestingly, the vast majority of the work constructed by all five of these foreign owned firms in the top 20 falls into the 'general contracting' category, a segment of the US contractors with minimal international contracting exposure.

2.3.4 Industry Work Force

The construction industry directly employs more than 6.5 million, or 5.8% of the private employment, in the United States (US Bureau of Labor Statistics, 2000). If the production, transportation, and distribution of construction materials and equipment are included, the industry employs directly, or indirectly, approximately 12% of the private workforce (Clough and Sears, 1994).

Unionization of the US workforce reached its peak in the 1950's at nearly 50% of American workers. Since its peak union membership has declined to 17.5% by 1986 and continued its fall to 13.5% of the workforce by 2000, with government workers accounting for 44% of all union membership (Hirsh, 2001). Union membership for the construction workforce in 1998 was at 17.8%, but the percentage of the workforce belonging to a union has also been declining since 1982 (US Bureau of Labor Statistics). In the Southern states, as much as 93% of the work is performed with non-union workers (Flanigan, 2000). Winston (1997) attributes union's declining membership to a relative increase in construction activity in traditionally non-union regions of the country, discord internally within the unions, and jurisdictional disputes between the 15 building trades representing workers in the construction industry.

The Construction Financial Managers Association (CMFA) annually conducts a national survey of construction firms. Fifty-two (52%) of the respondents to their 1999 survey selected 'shortage of trained field help' as the number one problem facing the industry, and 82% placed it in the top five. In addition, 12% selected 'shortage of trained project managers' as the number one challenge facing the industry with 60% placing this selection in the top five (CMFA, 1999). The shortage of skilled craft laborers and lack of skilled management were two of the top three challenges facing the industry in Fails Management Institutes' survey in 1997 (Wolfe, 1998) and again in Associated General Contractor's (AGC) and Deloitte & Touche's construction industry survey in 2000 (Flanigan, 2000). Additionally, CMFA's surveys for the past several years and an industry study in 1991 conducted under the auspices of the Construction Industry Institute (CII) have yielded similar results (Yates et al., 1991).

Krizan (2001) purports that the labor shortages are largely because of the poor pay scales in the industry. Tulacz (2000a) submits that the construction industry suffers from an 'image' problem. He claims that construction is perceived as the 'three D's' – dirty, dangerous, and dull. To specifically combat this problem, and alter perception, AGC initiated a campaign in the public schools during the late 90's called *Construction Futures*. In spite of these efforts, and the training and educational programs conducted by the unions, ABC, AGC, the National Center for Construction Education and Research (NCCER), vocational schools, colleges, and other trade organization, attracting and retaining construction workers remains an industry challenge (Liska and Piper, 2000). Almost all contractors are suffering from a worker shortage that is likely to persist as long as the US economic expansion remains in tact (Tulacz, 2000a).

2.3.5 Industry Organizations

A number of trade, technical, and professional organizations serve the interests of organizations involved in the construction industry. The primary organizations established to support and represent contractors are the Associated General Contractors (AGC), Associated Builders and Contractors (ABC), National Association of Home Builders (NAHB), and the American Road and Transportation Builders Association (Clough and Sears, 1994).

The Associated General Contractors (AGC) was established in 1918 at the request of President Woodrow Wilson to facilitate a partnership between the construction industry and the government to discuss and advance issues important to the nation and the industry. In the year 2000 its membership totaled 33,000 firms, including 7,500 general contractors, 12,000 specialty firms, and over 14,000 service providers and suppliers in a nationwide network of local chapters. AGC provides a number of services to support the industry including education and training, and industry representation with local and national governing bodies and other construction industry professional organizations. The organization drafts and publishes 'standard' forms and contracting formats, provides tactical support for bid solicitation and member communication and collaboration, and promotes industry awareness and public relations (AGC, 2000).

Six contractors in Baltimore started the Associated Builders and Contractors (ABC) in 1950. It is the only national association devoted exclusively to the merit shop philosophy. ABC's membership support services are similar to those provided by AGC with the exception of its distinct merit shop philosophy. In the year 2000 ABC represented over 21,000 contractors, subcontractors, material suppliers and related firms operating throughout the US and Guam through a network of local chapters (ABC, 2000).

AGC and ABC are both affiliated with the National Center for Construction Education and Research – an education foundation established in 1995 to provide a coordinated effort for construction craft and supervisory training in the US. The organization adopted ABC's Wheels of Learning program established in 1981 and provides training in over two dozen specialized construction crafts to 15,000 apprentices annually in its competency based apprenticeship training programs approved by the US Department of Labor and the Bureau of Apprenticeship and Training. The organization consists of 12,697 master trainers and craft instructors that have provided over 676,000 training modules to construction personnel as of May 2000 (NCCER, 2000)

The National Association of Home Builders (NAHB) comprises more than 200,000 members in 800 state and local builder associations throughout the US. Its primary purpose is "to enhance the climate for housing and the building industry, and to promote policies that will keep housing a national priority" (NAHB, 2000). About a third of its membership build or remodel residential homes and the remainder are associates from professions related to, and working closely with, the home building and remodeling industry. In addition to promoting the industry and providing tactical membership support, its primary purpose is to work with congress and federal agencies on legislation and regulations affecting the housing industry (NAHB, 2000).

2.4 FINANCIAL PERFORMANCE

Since most of the US construction firms are privately held, financial data on individual firms and the industry as an aggregate is not readily available. However two organizations, Robert Morris Associates (RMA) and Construction Financial Managers Association (CFMA), regularly gather detailed financial data for their respective constituencies and publish their findings for general consumption. RMA, founded in 1914 to facilitate the flow and interchange of financial data, gathers information for lending and credit risk professionals. RMA collects contractor financial data from over 3000 commercial banks and thrift institutions. CFMA, established in 1981 as a forum for education and construction financial management information, collects financial and organizational 'bench-marking' data to support its 6,000 members. Both RMA & CFMA conduct industry surveys and publish results on an annual basis.

Tables 2.4.1 and 2.4.2 present financial data for "General Contractors – Nonresidential Buildings" that has been extracted from RMA's annual publications for the ten-year period from 1990 to 1999. RMA categorizes the yearly data based upon constructor annual volume as noted on the top of each section of the table. The average sample size over the ten-year period, for all volume

categories combined, was 1,060. Table 2.4.1 provides the percentage of profit before income tax based on revenue (%PBT), and Table 2.4.2 lists the percentage return on equity (ROE).

Table 2.4.1
Commercial Contractor Financial Data - %PBT
Source - RMA

% Profit Before Income Tax					
Year	0-1m	1-10m	10-50m	> 50m	All
1990	3.9%	2.4%	2.0%	2.2%	2.4%
1991	1.0%	2.2%	2.2%	2.0%	2.1%
1992	-0.8%	1.6%	1.6%	2.0%	1.4%
1993	-0.3%	1.4%	1.4%	0.9%	1.2%
1994	3.7%	2.0%	1.1%	0.7%	1.8%
1995	2.8%	2.8%	1.5%	1.6%	2.3%
1996	4.5%	2.4%	2.2%	1.9%	2.4%
1997	3.6%	2.6%	2.4%	2.8%	2.6%
1998	2.8%	2.7%	2.5%	2.3%	2.6%
1999*	8.5%	2.7%	2.4%	2.6%	3.1%
10yr Ave	3.0%	2.3%	1.9%	1.9%	2.2%

* Volume categories are from 0-1m, 5-10m, 10-25m, > 25m, and all

Apparent from an examination of Table 2.4.1 is that contractor profitability, as a percent of volume, is relatively small when compared to other industries (Clough and Sears, 1994). Subtracting a representative tax rate of 35% from RMA's pre-tax data, over the ten-year period from 1990 to 1999, the average contractor operated at a net after tax profit of 1.4% of revenue. Even eight years into the longest economic expansion in US history, the average after tax profitability in 1999 is slightly more than 2%. The construction market is very competitive even in a robust economy. Schleifer (2000) submits contractors' need, or desire, for growth continues to hold down industry margins.

A continued examination of Table 2.4.1 reveals that contractor percent profitability started to decline in 1991 during the latest US recession, and remained depressed until a positive trend developed in 1993. With a reduced supply of new work contractors often cut margins, and their resulting organizational profitability, to retain market share (Hillebrandt and Cannon, 1990). Even though new work in the US returned to 1990 levels by late 1992, the effects of the slowdown lingered with general contractor profitability not returning to pre-recessionary levels until 1995 or later. A comparison of contractors with revenue of zero to one million to those with greater than 50 million reveals that the smaller contractors exhibited the effects of the recession sooner, but also recovered faster then the larger firms. Once new work margins are reduced it can take months, or years depending on project size and duration, for the financial effect to work its way through a contractor's financial statements (Pheng and Hua, 2000; Jackson, 1999).

Another relationship exhibited in Table 2.4.1 is that contractor profitability, as a percentage of revenue, decreases as contractor volume (size) increases. The disparity is especially pronounced when comparing contractors having annual volumes of 10 million or greater with contractors having less than 10 million. Jackson (1999) and Milliner (1988) note two primary market forces supporting this disparity. Higher volume contractors generally contract for larger projects. Larger projects tend to elevate market awareness and corresponding competition for the work and thereby depress project margins. Secondly, while contractors with higher annual volumes may have relatively higher absolute values of fixed overhead or costs, they tend to have a lower percentage of fixed overhead because there is more volume over which to 'spread' their fixed cost. This in turn encourages, or supports, a reduced percentage of margin on new work.

An examination of the data in Table 2.4.2 concerning percent return on equity (%ROE) reveals the same basic recessionary effects as exhibited in the %PBT data. Similar to %PBT, the data also points to a relationship between firm size and %ROE, but with a trend opposite that exhibited with %PBT. As firm size increases the %ROE tends to increase.

Table 2.4.2
Commercial Contractor Financial Data - %ROI
Source - RMA

% Return on Equity					
Year	0-1m	1-10m	10-50m	> 50m	All
1990	16.9%	16.4%	17.8%	23.3%	17.5%
1991	11.6%	14.5%	18.7%	22.1%	16.7%
1992	3.0%	11.2%	13.6%	18.7%	12.2%
1993	6.4%	11.3%	11.4%	12.9%	11.2%
1994	11.3%	12.0%	9.6%	10.5%	11.2%
1995	18.4%	17.5%	14.3%	14.7%	16.8%
1996	13.8%	17.9%	20.4%	21.8%	18.9%
1997	14.8%	17.7%	18.9%	26.8%	19.8%
1998	14.3%	18.9%	23.0%	24.7%	20.8%
1999*	34.8%	18.8%	18.8%	26.7%	21.7%
10yr Ave	14.5%	15.6%	16.7%	20.2%	16.7%

* Volume categories are from 0-1m, 5-10m, 10-25m, > 25m, and all

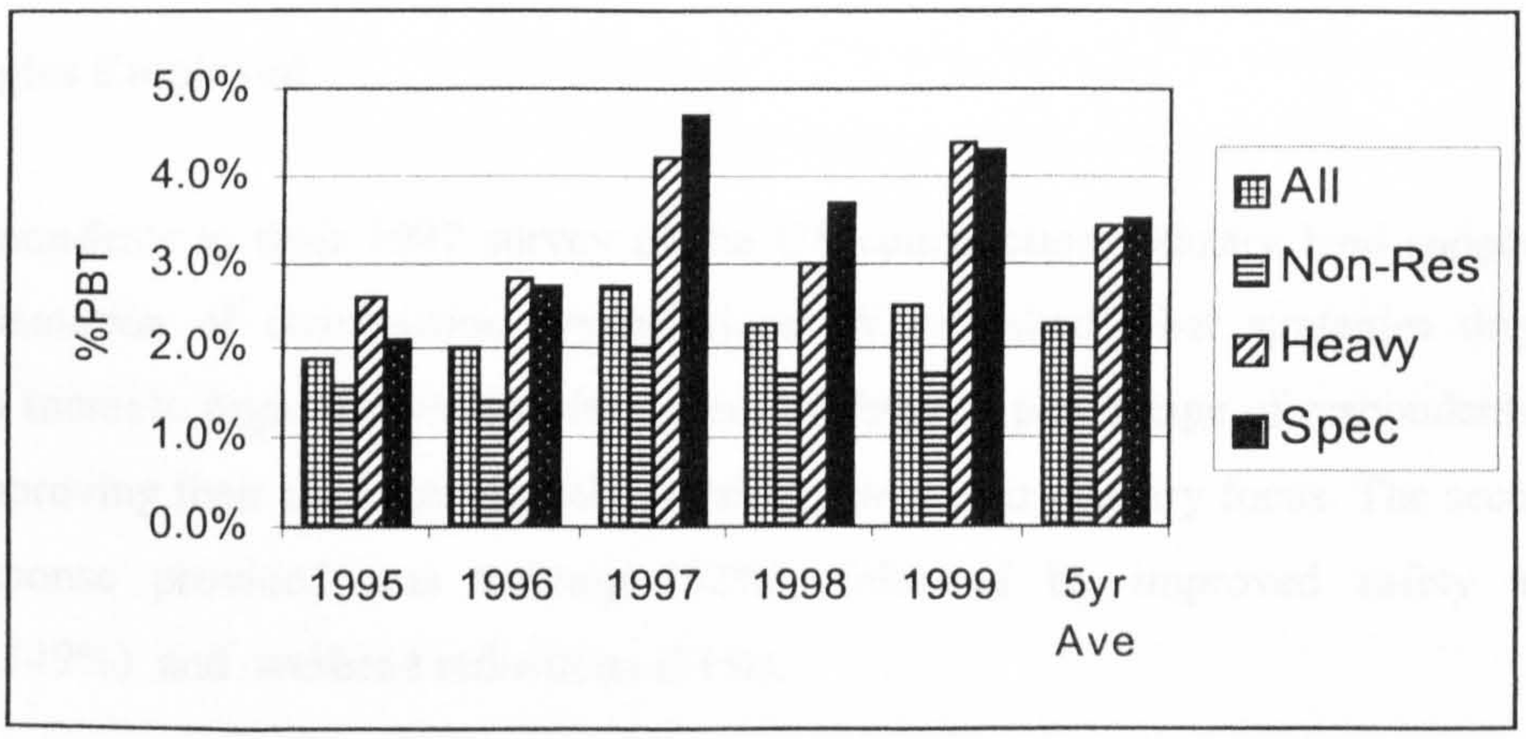
The primary factor influencing this relationship is that larger contractors tend to self-perform less work than smaller contractors. In essence larger contractors function more as "brokers" – subcontracting most of the 'actual' work to third parties (Milliner, 1988). Because of this approach, larger contractors tend to have a relatively lower percentage net worth because owner equity is not required for investment in plant & equipment or to provide interim short-term financing for direct labor and material costs. Larger contractors that 'broker' their work rely on subcontractors and material suppliers for a substantial percent of their short-term financing requirements driving up accounts payable as a percentage of liabilities and net worth with a

corresponding relative reduction of equity requirements. As a result they are generally more highly leveraged. So while %PBT may decrease as contractor size increases, %ROE often increases because of the relative reduction in equity invested in the firm (Jackson, 1999; Milliner, 1988).

The financial data provided by CFMA is not from the same population as RMA's. CFMA's survey population essentially comprises contractors with an annual volume greater than one million dollars and there are some differences in contractor classification. However, the trends and relationships identified in the examination of RMA's data are also evident in CFMA's financial survey results.

In addition to the correlation between contractor size and profitability CFMA's annual survey reveals a relationship between contractor 'type' and financial performance. Figure 2.4.3 - *%PBT by Contracting Type*, presents data on the %PBT over a 5-year period for three different 'types' of contractors: a) 'Non-Res'; industrial and nonresidential contractors, b) 'Heavy'; heavy and highway contractors, and c) 'Spec.'; specialty trades. Combined ('All') financial performance is also depicted in addition to the averages over the five-year period from 1995 to 1999.

Figure 2.4.3
%PBT by Contracting Type
Source - RMA



The %PBT disparity is greatest when comparing 'Non-residential' (1.7%) constructors with 'Heavy' (3.4%) and 'Specialty Trades' (3.5%). An examination of RMA's data categorized by 'type' again yields similar relationships. These different financial results by contractor type, or category, can only partially be explained by the variance in average firm size and the traditional amount of self-perform work within each category (Jackson, 1999; Milliner, 1988). In CFMA's

1999 survey the average volume for 'Non-residential' firms at 75 million is close to that of 'Heavy' at 70 million, but substantially higher than for 'Specialty Trades' at 37 million.

Similarly, both 'Heavy' and 'Specialty Trade' firms traditionally self-perform a higher percentage of the work than 'Non-residential', yet the average ROE over the same five year period yields mixed results. There are a number of environmental forces and organizational characteristics that are unique to a contracting entity based upon the 'type' of work the firm performs resulting in disparities in financial results (Jackson, 1999).

2.5 STRATEGIC ORIENTATION

"Successfully formulating and implementing an intelligent strategic plan is essential for the long-term success of any contracting firm." (Bishop, 2001:9). However, the increasingly competitive environment of the construction industry encourages management to maintain a short-term 'project-focus' with organizational resources and efforts directed toward managing project risks and reducing production costs (Chinowsky, 2000). This operational focus, coupled with the industry's traditional resistance to change (Kavanagh et al., 1978; Kululanga et. al., 1999; Clough and Sears, 1994) has often resulted in contractors reacting to environmental forces, rather than anticipating and proactively positioning their organization to effectively respond to the changing external environment of the industry (Hall, 1994).

2.5.1 Strategies Employed

CMFA's respondents to their 1997 survey of the US construction industry lend support to the 'internal' orientation of construction organizations. When asked what strategies they where employing to increase organizational performance, the highest percentage of respondents (87%) noted that improving their core operational capabilities was their primary focus. The second most frequent response provided was training (52%), followed by improved safety and risk management (49%), and overhead reductions (31%).

While many construction organizations tend to be internally focused, a number of firms are employing strategies with an external orientation. Strategies employed include geographical expansion of existing services (CMFA, 1997), diversification through acquisition or merger (Krizan, 1995; Reina, 2000), partnering, joint ventures, or strategic alliances (James, 1998; Zinn et al., 1997). Some seek to expand their contracting methods to include design (Grogan, 2000) and/or facility operation and ownership (Schriener et al., 1995). Still others are changing their

method of production (Angelo, 2001), altering their selection of project type (Grogan, 1995), pursuing vertical integration to maintain product quality and production control (Tulacz, 2000b) or conversely the use of subcontracting to minimize risk and adapt to the variability of demand (Male and Stocks, 1991).

2.5.2 Industry Trends

More than a decade ago Milliner (1988) identified the major trends affecting the industry. Those developments included increasing production automation and management technology, expansion of the design build method of project delivery, increasing competition, expanded firm promotion and market positioning, decentralization of operations, specialization of services, increased use of subcontracting, increasing scarcity of tradesmen, expanding percentage of renovation, and intensifying governmental regulation.

Fails Management Institute (FMI) is an organization that has been providing consulting and professional services to firms in the construction industry since 1953. A review of their recently published "*Megatrends Affecting the Construction Industry*", reveals a continuation of many of the same trends noted by Milliner twelve years previous.

FMI noted that service, maintenance, and renovation work, which is presently over 50% of industry revenue, is expected to continue to increase. Contractor specialization, or niche focus, will continue to rise in conjunction with efforts to differentiate contractor products and services as competition for all sectors increases. FMI sees "value creation shifting toward the front end (development, financing, design) and the back end (operate, maintain, renovate) while the central component (construction) is being driven to a commodity status" (Hartnett, 2000:1). They note a trend toward customized services and the increased use of partnering to create production 'value' chains.

"In the past 25 years, the construction industry has seen a remarkable evolution of project delivery systems in response to increasing owner requirements, urgency of schedules, heightened demands for safety and quality, and the critical necessity of reducing adversity in construction" (Dorsey, 1997:XI). Increasing ownership sophistication and the desire to reduce project time and cost has led to a significant increase in the use of the design-build method of deliver. In 1999 the design-build method of contracting accounted for over twenty-two percent of the revenue of the top four hundred contractors in the US (Korman, 2000b). Even some agencies in the public sector, where work is traditionally awarded based upon open competitive bid, have amended procurement laws to accommodate this method of delivery (McManamy, 1994). Contractors are moving closer to

the client and participating in a broader spectrum of construction related services (Hillebrandt and Cannon, 1990). Owners have become more sophisticated and global, are demanding more services, and are shifting more risk on ever increasingly complex projects (Darnell, 2001).

The construction industry will experience an accelerated consolidation toward a two-tiered market – large national contractors and small local or regional firms (Schleifer, 2000; Darnell, 2001). This trend is evidenced in the increasing percentage of new work performed by ENR's Top 400, a flurry of acquisitions and mergers within the Top 400 (Tulacz, 2000a), and the recent consolidation of more than fifty subcontractors to create the largest specialty contracting firm in the US (Korman, 1999).

In addition, information technologies are continuing to change the way contractors, designers, and owners communicate, control, and approach the entire capital development process (Chinowsky, 2000). Technology is expected to improve communication, generate cost savings, and reduce production duration while at the same time widen the gap between the industry's high-tech users and those organizations resisting the innovative and strategic changes being experienced by the industry (ENR, 1999).

2.6 SUMMARY

Construction is an industry that delivers a unique and complex final product. The distinctiveness of the product largely precludes mass production resulting in a highly individualistic and complex production environment (Peurifoy, 1985). Production methods and techniques are rarely proprietary and the workforce is highly mobile. Due to the nature of the product, firms have difficulty differentiating themselves from competitors by other than the initial price of production (Langford and Male, 1991). And price, which is uniquely determined for each final product, has less influence on demand then the overall health of the economy (Skitmore, 1989).

The US construction industry is the largest national market for new construction worldwide (ENR, 1998). It is a relatively 'open' construction market that is competitive and highly fragmented. To mitigate production risk, increase differentiation, and respond to increasing client demands firms typically specialize by type of construction and the services they provide (Eaton, 1999).

Even though the US construction industry is a mature, low growth industry with a comparatively well-known and established technology, the industry can be characterized as unstable and with an 'expanding level of turbulence' (Junnonen, 1998). The competitiveness of the industry, changing

technology, and shifting consumer demands continue to encourage contractors to effectively develop and deploy new tactical and long-term strategies for contract procurement and product or service delivery (Rwelamila et al., 1997; Eaton, 1999). Due to the competitiveness of the industry, and the difficulty of influencing demand, these strategies typically are internally focused toward increasing the effectiveness and efficiency of production and/or tempering business risk (Palmer et al., 1995). External strategies, when employed, often revolve around diversification of services and geographical considerations (CFMA, 1997).

Chapter Three examines the concept of organizational strategy and its relationship to a firm's environment. It reviews corporate level strategies including directional, portfolio, and parenting as well as the formation of the business level, or competitive, strategies of a firm. The strategy formation process(s) used by organizations to develop corporate and business strategies are then examined.

CHAPTER THREE:

STRATEGY FORMATION

3.1. INTRODUCTION

Chapter Two reviewed the unique characteristics of the construction industry and provided an overview of the US construction market. The structure of the construction industry is significantly influenced by the nature of the product and the delivery method for production (Hillebrandt, 1985). The industry can be characterized as highly competitive and fragmented with demand heavily influenced by the health of the economy and impacted to varying degrees by governmental policy, social trends, technological changes, and changing customer needs (Hillebrandt et al., 1995; Maloney, 1997).

The US construction industry is experiencing a number of long term trends including consolidation, increased specialization of products and services, expanded use of subcontracting, and increased contractor participation at both ends of the development spectrum for design, maintenance, and facility operation. Industry regulation is increasing, competition is intensifying, and the scarcity of workman is a growing problem (Milliner, 1988; Hartnett, 2000). Contractors are employing a number of strategies to cope with these changing environmental conditions to enhance firm performance. The majority of the strategies pursued are internally focused toward improving operational capabilities to reduce the cost and/or risk of production (CFMA, 1997).

The thrust of this chapter will be to examine the concept of organizational strategy and its application at different levels of the firm. The concepts of competitive strategy and competitive advantage will be investigated. The relationship of a firm's strategy with its external environment and organizational structure will be reviewed and the strategy formation processes will be examined.

3.2 STRATEGY – CONCEPTUAL DEFINITION

Strategy, which literally means "the art of the general", is derived from the ancient Greek word *strategos*, which meant a "general" (Steiner, 1969). This early definition of strategy as an art, or acquired skill, used in warfare is exemplified by Sun Tzu, a Chinese general from 400 B.C., in his masterpiece "The Art of War". Many of the principles on warfare strategy presented by Sun Tzu are applicable to business strategy today (McNeilly, 1996).

From these early roots in the military, strategy found its way into business literature by the mid-twentieth century. Alfred P. Chandler in his 1962 book titled "Strategy and Structure" is credited with the conception of strategy for business management (Wall et al., 1995). He defined strategy as "the determination of the basic long term goals and objectives of the enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals." (Chandler, 1962:13). Chandler's definition addresses ends, the need to define or plan long-term organizational goals and means, the allocation of resources acting toward those desired outcomes.

Ansoff emphasizes the relationship between the organization and its environment when he defines strategy as "the selection of product mix and markets ... oriented toward the achievement of ... a match between the firm and the environment" (1965:120). He places emphasis on matching the firm and its product mix with the environment and the market the firm intends to pursue. Similar to Miles and Snow (1974), Ansoff stresses that strategy is a coalignment process that links the firm with its environment. The boundaries of this environment are clarified by Pearce when he defines strategy as management's "large-scale, future-oriented plans for interacting with the competitive environment to optimize achievement of organization objectives" (1988:6).

Andrews defines strategy as "the pattern of major objectives, purposes, or goals and essential policies and plans for achieving those goals..." (Andrews, 1971:28). His definition emphasizes strategy as having consistency, or exhibiting a "pattern", in the decisions and actions of the organization. Andrews envisions strategy as a web of intertwined relationships between a firm and its environment encompassing organizational goals, operational policies, and implementation.

Hofer and Schendel assert that strategy includes both present and 'intended' actions when they define strategy as "the fundamental pattern of present and planned resource deployments and environmental interactions that indicates how the organization will achieve its objectives" (1978:25). Strategy comprises not only what a firm intends to do, but how it is presently acting out that intent. Based upon the assumption that a firm's actions have purpose, Hofer purports that every company has a strategy, whether or not it is explicitly stated, and further a firm's strategy is characterized by the 'pattern' evidenced in their decisions and actions.

Quinn suggests that strategies "may be looked at as either priori statements to guide action or posterior results of actual decision behavior" (1980a:9). He and Mintzberg et al. (1985) de-emphasize the linkage between observed, or recognizable strategy, and prior explicit management intentions. They lend support for Hofer and Schendel's concept of strategy as a "pattern" exhibited by the firm over time, but argue that planned, or intended, strategies are not always

evidenced by an organization's behavior. They submit that a firm's continuing decisions and actions more properly define an organization's strategy, rather than its strategic intent. Mintzberg submits that a firm's strategy is defined by the "pattern in a stream of decisions" that it exhibits over time (1985:257). Additionally, Chinowsky (2001) purports that the strategic options available to a construction firm are based upon the many small incremental strategic actions, or the 'pattern of decisions', made over the course of time by the firm.

Whether an organization's strategy is defined as an explicit plan governing actions of the firm planned in the future, or is inferred from a pattern of past decisions, the consistent theme permeating the work of the preceding authors is that central to strategy is the management of the relationship between the organization and its 'external' environment. Strategy is concerned with aligning organizational resources with environmental opportunity and threats (Davis, 1986) and is the mediating force between the firm and its environment (Mintzberg, 1979, 1987; Collins et.al, 1994).

A firm's strategy is the underlying rationale that governs, or influences, the organization's strategic choices (Stahl and Grigsby, 1992; Macmillian et. al., 2000). It is the integration, or reinforcing pattern, of these strategic choices throughout an organization that defines a firm's strategy (Rumelt and Schendel, 1994). It is "the pattern or plan that integrates an organization's major goals, policies, and action sequences into a cohesive whole" (Quinn, 1980:61).

These strategic decisions, whether planned or ad hoc, reinforce that the essence of strategy is choice (Porter, 1996; Oster, 1994). Choices that are considered important for the overall welfare of the organization (Chaffee, 1985) that can have a long-term effect on the success of a firm and are often difficult to reverse (Macmillian et. al., 2000). These decisions establish the goals of the organization, its policies and programs to support those goals, and the allocation of resources necessary to achieve the firm's objectives in an anticipated future environment. These strategic choices are central to the performance, and survival of the organization and have a great deal of influence on other lower-level decisions throughout the firm (Thompson & Strickland, 2001; Stahl and Grigsby, 1992).

Hillebrandt and Cannon (1990) and Ramsey (1989) submit that strategic choice for contracting entities entails decisions concerning four basic organizational elements – scope, resource allocation, competitive advantage, and synergy. The scope of a construction firm's services, products, and geographical range is viewed as the most important strategic choices. They are seen as influencing the development and deployment of organizational resources, which in turn

provides the framework for pursuit of a competitive strategy and the synergy options available to the firm.

3.3. STRATEGY LEVELS

It is clear that strategy exists at multiple levels within the firm (Hofer and Schendel, 1988). While the early definitions of strategy by Chandler and Ansoff made no distinction between corporate and business level strategy, "most firms have come to recognize two types of strategy: business unit strategy and corporate strategy" (Porter, 1985: 317). Others have added a third that is commonly labeled functional strategy (Lorange 1985; Miles et.al., 1978; Faulkner and Bowman, 1995). Further, these different strategies are interrelated in generally a hierarchical manner (Hamel and Prahalad, 1989).

Corporate level strategy is primarily concerned with the domain in which a firm will compete through its selection of business entities and the allocation of resources amongst these different businesses (Hofer et al., 1978; Hamermesh, 1986a; Bourgeois, 1980). The business level strategy is often labeled a firm's "competitive" strategy. It is focused around the core competencies of the 'strategic' business unit (SBU) and is concerned with the marketplace in which the business will compete and the combination of products and services to be offered (Faulkner et al., 1995; Hamermesh, 1986b). The functional strategy is driven by the firm's competitive strategy and is primarily concerned with the role of the functional departments of the business unit. Its principle focus is maximizing resource efficiency and productivity. (Macmillian et. al., 2000)

3.3.1. Corporate Level Strategy

Porter (1987) labels corporate level strategy as the company-wide strategy governing the firm's choice of businesses within which to compete and how the corporation should manage those business units. Pearce et al. (1985, 1987) call it the firm's "grand strategy" and Bourgeois (1980) labels it the "primary strategy" which a corporation utilizes to reach its growth and profitability objectives. Forces shaping the selection of corporate level strategy include the goals of the leadership and the dominate coalitions of the firm, the firm's organizational abilities and capacity, environmental conditions, and the financial constraints imposed on the firm (Hamermesh, 1986b). Corporate strategy for a construction contracting firm includes issues such as the growth vector of the firm, the overall menu of services to be offered, range of projects the firm will undertake, type of clients, contracting arrangements, and geographical areas of operation (Male and Stocks, 1991).

Ansoff asserts that a corporate level strategy is primarily concerned with the choice of product-market scope and the firm's internal capacity and competitive advantage, the synergy of the business components, and the growth vector of the firm (1965). Similar to Ansoff, Wheelan and Hunger (1998) purport that corporate level strategy involves choice concerning three key elements – the directional, portfolio, and parenting strategy of the firm.

Directional Strategy

The "directional" strategy of the corporation establishes the growth orientation of the firm and the general technique to be utilized to achieve the desired goals. It establishes the direction of the firm's approach to the market and defines the corporation's intentions concerning whether it intends to grow, remain stable, retrench, or divest. It addresses the desired rate of change, or aggressiveness with which a firm intends to pursue its objectives. In addition, a firm's directional strategy defines the preferred method(s) of achieving a firm's profitability and growth objectives. The primary considerations for determination of method are whether the firm grows through the development of internal skills and capabilities or through acquisition (Wheelen and Hunger, 1998; Glueck, 1980; Ansoff, 1965)

Theorists and researchers have devised general schemes to describe the strategic orientation of a corporation. Glueck (1980) identified four directional strategies that govern corporate activities - external acquisitive growth, internal growth, stability, and retrenchment. MacMillian and Jones (1994) presented eight categories – aggressive build, gradual build, aggressive maintain, selective maintain, competitive harasser, prove viability, and divest. Pearce et al. (1985) identified twelve (12), which include concentration, market development, product development, innovation, horizontal integration, vertical integration, joint venture, concentric diversification, conglomerate diversification, retrenchment/turnaround, divestiture, and liquidation.

Fluor Corporation's decision to increase construction revenues by fifteen percent per year through geographical expansion, and the firm's subsequent decision to consolidate operations several years later because of failing performance, exemplifies the impact that strategic decisions regarding directional strategy can have on an organization (Korman, 1997).

Directional strategy is largely influenced by the anticipated market potential of the products and services of the firm's businesses, quality and quantity of resources available to the firm and ownership and organizational desires, tempered by the corporation's past performance (Porter 1991). Alternatives for a firm with declining performance are significantly different that for a firm with consistently improving performance (Porter, 1980; Ginsberg et al., 1985)

A criticism of these broad corporate strategies presented by Glueck, Hofer, and others is that they are not mutually exclusive and may not properly classify a firm's specific business strategy. While they may characterize the overall "general" strategy of the company, it is quite possible that one or more of a firm's individual business units may be exercising a strategy that is in variance to the grand strategy of a firm. A corporation may be retrenching in one business area while pursuing growth in another. (Davis, 1986)

Portfolio Planning

A corporation's portfolio strategy establishes it competitive domain through its choice of the businesses and product-market scope. The concept of portfolio strategy originated in the late 60's through the work of the Boston Consulting Group at McKinsey & Company (Hamermesh, 1986a). It gained wide acceptance in the 70's largely because of the growing difficulty in managing large, diversified firms that were often engaged in a number of unrelated businesses (Reimann and Reichert, 1996). The logic is to view the corporation as a "portfolio" of independent business units that should be evaluated, and classified, based upon the performance and underlying fundamentals of the individual businesses and the markets in which they operate.

A number of portfolio planning techniques have been developed to aid in the selection of a corporation's portfolio of businesses. Their primary function is to assist management in determining the industries and markets in which a firm will compete, the individual business unit arrangement, and how the corporation allocates resources amongst these individual business units. Hamermesh defines them as "analytic techniques that aid in the classification of a firm's businesses for resource allocation purposes and for selecting a competitive strategy on the basis of growth potential of each business and of the financial resources that will be either consumed or produced by the business" (1986b:10).

Boston Consulting Group's Growth/Share portfolio planning matrix (PPM) classifies business units as "star", "cash cow", "dog", or "?" based upon the anticipated long term growth of the market and the market share of the business unit. "Stars" are those businesses that have high market share in a rapidly growing market and would generally command a strategy of investment and growth. In contrast, those classified as "dogs" are businesses with a weak competitive position in a low growth market which would dictate an approach to improve the business's competitive position or a divestiture strategy (Reimann et al., 1996). The underlying assumption of this technique is that market share is related to profitability and growth potential determines investment requirements. Companies were encouraged to "balance" their portfolio, and its cash needs, with a mix of these different business categories (Abell and Hammond, 1979).

A similar portfolio planning method is the GE/McKinsey matrix which uses a nine cell matrix to classify businesses as low, medium, or high according to competitive position with a similar scale rating the long-term attractiveness of their market (Stahl et al., 1992). The strategic theory underlying this technique is that having a portfolio of businesses with similar operating or management expertise enhances profitability.

The need for an empirical evaluation of an individual business, which was lacking in the Growth/Share and GE/McKinsey technique, precipitated a growing use of another technique, Profit Impact of Marketing Strategy (PIMS). This approach utilizes a database of over 3000 business units that has been assembled by the Strategic Planning Institute (Reimann et al., 1996). It allows members access to a wide range of data on variables such as profitability, market share, and organizational structure. Its purpose is to provide bench-marking criteria to help evaluate business unit performance, economic value, and assist in the strategy selection process (Abell et al., 1979).

The popularity of portfolio planning matrixes increased and by the early 1980's a survey of the Fortune 1000 companies found 50% utilizing one or more of these techniques (Haspeslagh, 1982). However by the mid 1980's, with declining interest rates reducing the need for balancing internal cash needs, and corporate raiders evaluating corporations and their underlying SBU's at their economic, or market value, firms were forced to reevaluate their method of assessing the value of their portfolio of businesses (Reimann et al., 1996). These conditions gave rise to the use of an alternate technique for assessing SBU value and guiding the capital allocation process labeled value-based planning (VBP). This technique essentially established business unit value based upon net present value of projected cash flows, or the risk adjusted cost of capital. Valuation of the SBU's, and ultimately the corporation, was assessed from an investor's perspective with less emphasis, if any, on a firm's perceived synergy of its portfolio (Rappaport, 1986).

A recent study by Reimann et al. (1996) of the Fortune 500 companies found that 63% use at least one of the three techniques – PPM, PIMS, or VBP to aid in the capital allocation process. Based on his study he concludes that evaluating an individual business unit's present and potential performance to determine the allocation of company resources is one of the most important responsibilities of corporate management. Many companies by targeting business unit investments, or disinvestments, have dramatically restructured their business portfolios (Reimann et al., 1996).

Perini Construction Company's decision in the mid 1970's to diversify into real estate development to reduce its dependence on construction revenue and stabilize the economic performance of the firm was a strategic decision concerning the firm's portfolio (Angelo, 1999). Similarly, Atkinson Construction Company's investment in manufacturing facilities for rail transportation altered the organization's allocation of resources and adjusted the portfolio of businesses (Rosenbaum, 1997).

In addition to evaluating resource allocation amongst distinctly different businesses, portfolio planning for contracting entities is often associated with the firm's "portfolio' of services and projects (Skitmore, 1989). Lord, in his study of twenty UK engineering construction firms, found evidence that contracting organizations frequently used their existing portfolio of projects, and their selective pursuit of future projects, to achieve the strategic objectives of the firm (1993). The type of services and projects undertaken can have considerable impact on the performance of a contracting firm. A proper mix of both is key for effective resource utilization and economic success (Grundy, 1993, 1998). Male and Stocks (1991) amplify the importance of 'project' portfolio planning. They assert that a firm's existing projects, which are often a reflection of an organization's resources and knowledge, represent the company's past strategy and significantly influence the future strategic direction of the organization. In the strategy hierarchy, project selection is the vehicle for, and manifestation of, a contractors strategic objectives (Grundy, 1998).

Parenting

The "parenting" strategy of the firm is focused on how the corporation will interact, support, and cultivate the individual business units and build a corporate synergy through the sharing of resources and the development of the individual businesses (Wheelen and Hunger, 1998). It establishes the pattern of relationships among the business units and the corporation (Rumelt, 1974). This strategy determines if business units will share activities in the value chain, transfer generic knowledge and management skills, or be competitors with each other (Porter, 1985). It is similar to Hamermesh's concept of "institutional" strategy that establishes "the basic concepts and beliefs that guide the organization's choices and behavior" (1986b: 37).

The Growth/Share matrix implied that businesses were related if their cash flows, profitability, and growth potential contributed to a balanced portfolio. The GE/McKinsey matrix suggests that the relationship should be one of operating skill and management expertise, or core competencies. In contrast, the parenting framework is concerned with the contribution, or value that the parent organization brings to the businesses (Campbell et al., 1995). Due to the complexity of the production process and the volatility of the operating environment, Junnonen submits that a

construction corporation's parenting advantage "must grow out of a deep understanding of how the SBU's prosper in individual business areas, and the role of the corporate office and other subsidiary business units in the process" (1998:110).

This value-creating concept for parenting is grounded in the economics of competitive advantage. A corporate parent, as an entity, does not generate revenue. It only has cost, or overhead, that distracts from business financial performance. A parent can justify its existence only if it brings economic value to the businesses in excess of the cost of its corporate structure (Goold et al., 1994). Wheelen et al. (1998) and Campbell (1995) advocate that 'corporate parents' should be looked at as intermediaries between its individual businesses and investors and as any other agency relationship it should be evaluated based upon the value that the parent brings to each business.

Goold et al. (1994) interviewed senior management of both the parent organization and its business units from 17 large, multi-business companies. Based on this study they concluded that parents could create, or destroy, value of the business units comprising the corporate portfolio through the influence and guidance they provided. They noted instances where the parent's contribution helped the business identify and capitalize on opportunities that enhanced value well in excess of the parent's overhead cost. In his study they also found that a parent could impose unnecessary operating constraints or provide inappropriate direction that adversely affected the value of a single business, or a combination of the company's portfolio.

Hochtief AG's acquisition of Turner Construction Company is an example of corporate parenting in the construction industry. The acquisition was a strategic decision to capitalize on the perceived synergy that would be created between the two firms. Management believed that combining Hochtief's strong financial base and its experience in infrastructure and heavy civil project in Europe with Turner's weaker balance sheet, but extensive commercial building experience in the USA, would increase the market penetration and value of both organizations (Power, 1999).

Wheelen purports that a parenting strategy seeks to establish a parenting advantage. A corporation establishes a parenting advantage not by just creating more value than what could be created without the parent, but business value in excess of what any other parent could create (Wheelen et al., 1998). The parenting–corporate strategy link is similar to the competitive advantage–business strategy link. Corporate strategy guides parenting choice and is interrelated with a firm's portfolio selection. It seeks to create a fit between the parent and the business, and if the fit does not create value, the corporate strategy has failed (Goold et al., 1994; Campbell et al., 1995). Porter found evidence of this in his study evaluating the diversification strategies of 33 major US companies

over a 26-year period (1987). In his study, he found that over half of the acquisitions of these corporations were subsequently divested. Porter found that diversification inevitably added costs and constraints to these business units and concluded that unless the parent could enhance a business's value in excess of these burdens, shareholders (investors) could diversify themselves more effectively that the parent corporation.

3.3.2. Business Level Strategy

Competitive Strategy

Business level strategy involves the competitive strategy for what is commonly termed a strategic business unit (SBU). An SBU is generally defined as a single product, or single service, business organization that is largely self-contained and operates by way of a semiautonomous relationship with the corporate parent (Drucker, 1992). In the construction industry a strategic business unit is often characterized as a division or profit center with a remote geographical market and/or a business unit with specialized services or project 'type' expertise (Skitmore, 1989). While it may be related to other businesses in the corporate portfolio, it often has a discreet industry environment and its own business strategy (Davis, 1986; Steiner, 1979). The SBU strategy addresses issues such as precisely in which markets the business will compete, the actual products or services to offer, and is primarily concerned with establishing, developing, and maintaining a competitive advantage in the operating domains of the business. (Porter, 1985)

One of the most influential writers and researchers on competitive business-level strategy is Michael E. Porter (Stahl et al., 1992). Porter (1985) argues that the business-level strategy, or its competitive strategy, is the centerpiece of a firm's strategy. Davis's (1986) study of firms in the paper industry supports Porter's assertion. In his study, Davis found that business unit strategy had a significantly greater influence on firm performance than corporate strategy. Business strategy is only unimportant if competition does not exist (Ohmae, 1982). In addition, Goold et al. (1994) purport it may also be the only well-developed strategy within the corporate entity. In his study of large multi-business companies, he found that the corporate strategy for most of the firms in his sample was developed by simply 'summing' the strategy of the individual SBU's and overlaying that aggregate with a broadly worded mission statement.

Chinowsky (2001) submits that a contractor's competitive strategy is the 'foundation' of the business. This 'foundation' includes both the organization's core competencies and its client base – concepts that may not be readily apparent to the organization. In his study involving 2100 architect, engineer, and construction organizations he concluded that firms often have difficulty identifying and capitalizing on their core competencies.

The primary thrust of a SBU strategy is to optimize the resource conversion process of the business and thereby maximize long-term economic performance (Ansoff, 1965, 1988). The strategy of the business reflects its intention to secure its long-term survival and prosperity through sustained growth and profitability (Pearce et al., 1985). Performance of a firm's strategic business units (SBU) is what brings value to the corporation. The parent corporation can only add to, or distract from, the economic performance of the businesses. It is the economic performance of the SBU's that establishes the performance of the corporation. Economic performance is the function of business and is key to the long-term viability of the corporation. It is the basic reason for a firm's existence (Drucker, 1964). The conclusion reached by Porter (1987) in a study of major US corporations is that "competition occurs at the business unit level. Diversified companies do not compete; only their business units do." (1987:46)

The competitive strategy of a SBU is a search for a favorable and sustainable competitive position in the marketplace that offers long-term profitability (Porter, 1985). Sustaining a competitive advantage is often a never-ending pursuit of continuous improvement (Kululanga et. al, 1999) It involves positioning the business's resources to maximize the potential of the organization and distinguish it from its competitors (Porter, 1980, 1996; Henderson, 1989). Because the SBU has greatest knowledge of the opportunities within a market for a given product or service the business strategy establishes the precise domain for engagement of the competition. A business strategy is primarily focused on the SBU's effectiveness, or fit with the environment, but it is also concerned with the operational efficiency embodied in the functional strategy of the SBU (Below et al., 1987; Hamel, 2000).

The goal of a competitive strategy is to achieve a competitive advantage over an SBU's competitors because it's a business's competitive advantage that determines the organization's long-term performance. And a SBU's competitive advantage grows out of the value it is able to create for its external customers in excess of its cost of production (Porter, 1985: Macmillian et. al., 2000).

Porter contends that at the heart of establishing competitive advantage is the selection and pursuit of a generic business strategy (1985). He purports that there are only two basic generic strategies available for a SBU – cost leadership or differentiation (Porter, 1991). To do things more efficiently than its competitors enabling it to compete on price, or develop a break away strategy by doing things differently and create customer value by distinguishing the firm from its competitors (Albrecht, 1992, 1994; Hamel, 2000). Porter later added a third, labeled focus or niche, which is essentially the application of one of his two generic strategies to "niche" markets (1985). Ramsey's evaluation of the construction industry is similar to Porter's general assertions.

He submits that contractors have a choice between two basic strategies – compete on cost or compete by differentiating the firm from its competitors (Ramsey, 1989).

A strategic business unit practicing a cost leadership strategy is striving to produce a product or a service at a lower cost, and ultimately a lower price to its customers, than its rivals do. This strategy is similar to Hofer and Schendel's (1978) generic strategy of "efficiency" and Hall's (1980) "low delivered cost" strategy. SBU's with a cost leadership strategy are highly focused on production costs and operational efficiency. Because of the nature of the construction product, and the prevalence of competitive bidding for project award, many contractors pursue a low cost strategy for competitive advantage (Weston, 1996; CFMA, 1997).

Porter's generic strategy of differentiation is similar to Hofer and Schendel's (1978) generic strategy of "effectiveness" and Hall's (1980) strategy of "high differentiation". A SBU pursuing a generic strategy of differentiation has, or seeks, the ability to differentiate its product, or service, from its competitors as perceived by the customer. It is a strategy to bring greater actual, or perceived, value to the customer and thereby command a premium price that exceeds the added cost of delivery (Porter, 1991).

Ramsey (1989) submits that differentiation for a contractor extends beyond the end product to include all facets of the delivery process throughout the spectrum of the real estate development timeline. Due to the method of product delivery, Eaton (1999) purports that firm differentiation is strongly linked to the knowledge and performance of the individual members of the firm. Because of the high degree of interaction between multiple organizations during production, 'how' the individual members of the construction organization deliver the contracted service throughout the production period can provide a competitive advantage, or conversely a competitive disadvantage (Egbu, 1999; Hamel, 2000).

In addition to distinct capabilities and knowledge of organizational members, Hillebrandt and Cannon (1990) claim that contractors have basically four ways, which can be used individually or collectively, to differentiate their capabilities. Construction firms can offer a distinctive range of production management services concerning scope and timing of product delivery or expand the spectrum of their capabilities along the development timeline. Contractors can move forward to include project design and financing assistance or to the post construction period to include facility ownership and maintenance.

Selection, and actual pursuit, of a generic strategy is essential because of the impact it has on the operations of a SBU. A business's generic strategy establishes the fundamental approach to its

competitive advantage and provides the framework and focus for action taken at the functional levels of the business. It determines business resource allocation, operational focus, and market interaction (Porter, 1995,1980; Hall, 1980; Hofer and Schendel, 1978). Ramsey (1989) asserts that some construction firms try to execute both generic strategies simultaneously and often attain neither a cost advantage nor organizational distinctiveness.

The foundation for a SBU's competitive advantage is its core competencies that are in large part rooted in the functional activities of the business. These core competencies are the key strengths and capabilities of the organization (Porter, 1980; Hamel et al., 1989). Since a key strength may not distinguish the business from its competitors, the thrust of a SBU's strategy is to develop these core competencies into distinctive competencies, or competencies that differentiate the business from its rivals (Hamel et al., 1989; Hofer, 1978). It's not just what the business can do, but rather what it does well relative to its rivals (Hamel, 2000). Competitive advantage flows from organizational activities that are viewed as superior to what its competitors can, or are willing to provide (Porter, 1996). These superior competencies are the building blocks for the business's distinctive products and services and are often more important than the products or services themselves (Male and Stocks, 1991).

Environmental – Organization Relationship

Strategic management theory holds that the objective of an organization's strategy is to generate a fit, or an alignment, of the organization's capacities and distinctive competencies, with the threats and opportunities of the environment (Rhyne, 1985; Andrews, 1971; Hofer and Schendel, 1978; Miles and Snow 1978; Mintzberg, 1978). The success of an organization's strategy hinges on its ability to interact favorably with its environment (Ansoff, 1979).

Cyert and March (1963) developed a behavioral theory of a firm that views it as a complex organism interacting with its environment. Their theory purports that a firm has an open system that allows interaction with its environment at multiple points of the organization through a permeable boundary between the two. These interactions influence both the firm and its environment. They view the environment as dynamic and the firm within it as an adaptive institution that much the same as a natural organism, is striving to reach equilibrium with its surroundings. Cyert and March assert that it is the uncertainty and interdependence of this environment-organization relationship that poses the most significant challenge to an organization.

Based on the empirical research of Burns and Stalker (1961) and Lawrence and Lorsch (1967) the success or failure of a firm is not associated with a simple and singular set of variables. The

performance of an organization, and the success it achieves through its pattern of decisions, depends on a number of factors. The most important of these contingency variables include the environment, especially the market that the firm is operating in, and the firm's organizational characteristics such as size, culture, technology it deploys, and organizational expectations. These authors contend that for a certain set of environmental conditions an optimal organization and strategy exist. Burns and Stalker (1961) contend that an organic, or integrative, organization provides better levels of performance in a rapidly changing environment, while a mechanical, or control oriented organization, is best suited for a stable environment. This contingency theory is predicated on the assumption that successful business strategy is determined by the relationship between the variables that the organization controls, or its operational activities, and those that are outside the organization's control which are predominately contained in the external environment (Galbraith, 1983).

The criticism of this contingency approach is that it largely views the environment as the dependent variable and the organization's strategic reaction as the independent variable (Ginsberg, 1985). It suggests that management action is not an essential factor and that the environment determines the appropriate strategic response, in essence that the structure and strategy of the firm are preordained by environmental conditions (Miles and Snow, 1978; Fredrickson, 1984).

Child and Mansfield (1972) interjected strategic choice into the environment-organization relationship with their assertion that organizations create their broader environment by the strategic decisions the firm makes. Organizations create their own environment by the major choices they make concerning product or service to be delivered, technology employed, operational scale and the market they select (Weick, 1969). Weick asserts that a firm shapes its competitive environment rather than merely evaluating and reacting to it. Hirsch's (1975) research supports Weick's assertion. Through Hirsch's study of pharmaceutical firms and record companies, he concluded that pharmaceutical companies enjoyed higher profitability because of their ability to shape their competitive environment through control of the distribution channels and their ability to favorably influence the legislative process.

While an organization attempts to influence and shape its environment, the environment itself is in a continual state of change that varies in rate and complexity. Duncan's (1972) empirical findings from a study of twenty-two decision groups in three manufacturing and three research and development organizations support his conclusions that decision makers face a higher degree of uncertainty, as the instability and complexity of the environmental interaction increases. Coping with this environmental uncertainty, and the complex interrelation between the

organization and its environment, is the primary challenge for complex organizations (Thompson, 1967; Weick, 1969; Galbraith, 1973).

Emery & Trist (1965) developed the first widely recognized typology that defines a firm's environment based upon the degree of interrelationship and the dynamic state of the environment (Miles et al., 1978). They argued that each of their four generic environments, which ranged from "placid – randomized" exhibiting a stable and loosely connected relationship to "turbulent" characterized by a rapidly changing and tightly interconnected relationship, required a different strategy and organizational structure. Supporting this linkage, Mintzberg (1978) and Ansoff et al. (1990) hypothesized that as the dynamic state of the environment increased, a firm needed a more flexible and responsive, or organic, organization. Additionally, as the complexity of the environment-organization relationship increased, an organization should pursue a decentralized arrangement in contrast to a centralized organization, which is viewed as more desirable in a hostile environment.

Lansley's (1987) study of the UK construction industry covering the decades of the 60's, 70's, and 80's also purports that environmental conditions demand different strategies for organizational skills, structure, and management style. In his work he submits that highly competitive and unstable environments dictate a strategy of proper work selection and organizational efficiency with a structure supporting evolving control versus a tightly controlled and specialized strategy in stable environments.

The strategy of an organization is generally seen as being influenced by the external environment at two different levels. One is the "general" environment that contains variables that are loosely tied to an organization and exhibit an indirect effect on the firm. These variables include the social, legal, political, and general economic conditions of the broader environment within which a firm operates (Emery & Trist, 1965; Miles et al., 1978; Wheelen et al., 1998). This general environment, labeled the 'common industry/national environment' by Lansley et. al. (1980) is viewed as influencing the economic and social fabric of construction firms, clients, suppliers, the workforce, and governmental agencies. This remote, or external, environment contains a set of variables that originate beyond the firm and are seen as factors largely beyond the control of any one organization (Pearce et al., 1985).

The second environmental level has been labeled the transactional (Emery & Trist, 1965), specific (Hall, 1972), industry, or competitive environment of the organization (Porter, 1985; Davis, 1986). Most theorists support that this environment contains the essential set of environmental forces that an organization must respond to (Miles et al., 1978). Porter categorized these forces,

which differ by strength and influence from industry to industry as the ease of entry of new competitors, threat of substitutions, the bargaining power of buyers and suppliers, and the rivalry among existing competitors (1985). These forces have a significant effect on a firm's performance as evidenced by the historic valuation disparities between industry groups of publicly traded companies (Wheelen et al., 1998). While the threat of substitution is relatively benign in the construction industry, the remaining industry forces have a major influence on a firm's competitive approach and the strategic options available to the organization (Wang and Yang, 2000).

Lansley et al (1980) segments the 'industry' environment faced by contracting firms into two distinct environments - a competitive and an operational environment. The competitive environment is localized to the environment in which the firm actually competes. The primary environmental variables are the nature of 'local' demand, competition, and the availability of materials, labor, subcontractors, and suppliers. They note that as a contractor increases its size, and geographical reach, the boundary between the industry and competitive environments becomes faint. Unlike a firm's competitive environment, a contractor's operational environment is unique for each organization. It flows from the past and present strategic choices made by the firm. Choices such as the type of services offered, project selection and production decisions, clients pursued, geographical area(s) of operation, and selected industry relationships (Macmillian et. al., 2000).

However, depending on the strategy pursued, organizations are viewed as having a higher degree of influence on the competitive and operational variables than those of the general environment (Lansley et al, 1980; Porter, 1985). Organizations have a number of options available to cope with the instability, uncertainty, and severity of the environmental forces facing the business. These options include the use of long-term contracts, joint ventures (Dalle and Potts, 1999), consolidating the competitive arena through merger (Krizan, 1995), partnering (James, 1998), diversification (Grogan, 1995), altering project type (Grundy, 1998), and expanding contracting methods (Grogan, 2000). Support for the strength of strategic choice on business unit performance is provided by Davis's (1986) study of two hundred eighty-two (282) strategic business units in a single industry. Based on his findings he concluded that the SBU's strategy had a more significant effect on a business unit's profitability than the environmental forces of the industry.

Strategy - Structure Relationship

Alfred P. Chandler in his 1962 book titled "Strategy and Structure" evaluated the history, over more than a 50 year period, of four large companies – General Motors, Standard Oil of New

Jersey (Exxon), Dupont, and Sears & Roebuck. He found that managers react to, rather than foresee, environmental opportunities. Chandler observed that as the United States economy evolved opportunities became available to these organizations. Management, either knowingly or unknowingly, would adjust their strategy to take advantage of these opportunities. However, frequently when their new strategy was implemented, it failed to produce the intended results. A misfit had developed between the strategy of the organization and its operating structure creating inefficiencies that reduced anticipated performance. This misfit required the firm to change its operational structure and necessitated the reallocation of resources. He concluded that over time, the long-term strategy of the organization determined its organizational structure.

This strategy-structure link is supported by the work of Drucker (1974). He identified a strategy-structure linkage relating to organizational size. Drucker concluded that it was not sufficient to plan for growth or expansion without reevaluating and altering structure. He maintains, "good organization structures will not just evolve. The only things that evolve by themselves in an organization are disorder, friction, and malperformance. We realize now that structure is a means for attaining the objectives and goals of an institution. And if structure is to be effective and sound, we must start with objectives and strategy." (Drucker, 1977:173). Lansley, Sadler, and Webb (1974) provide additional support for the strategy-structure linkage in their study that included twenty-four medium sized building firms. Their study found that construction firms that adopted a structure considered appropriate to their strategic objectives experienced enhanced performance over those that didn't.

While Drucker and Chandler assert that structure tends to follow strategy, others (Cyert and March, 1963; Pennings, 1985; Ghemawat, 1991; Hamel and Prahalad, 1994) contend that structure constrains strategy. Once a strategy is selected and the structure established for an organization it often tempers or precludes future strategic options. A firm may be 'locked in' to its existing strategy because of sunk costs for capital expenditures or personnel development for present markets and customers. It may be "locked-out" from pursuing a different course because additional resources aren't available to pursue a new strategy. There may also be a considerable time lag required to adjust to a new strategy which discourages a strategic change (Ghemawat, 1991). "Where a firm can go is a function of its current position ...and its current position is shaped by the (strategic) path it has traveled" (Teece et. al., 1997:522)

Based on three separate studies, of firms in three different industries, Miles and Snow (1978) found that there are 'prevailing' beliefs within an organization. They developed four different groupings of organizations that ranged from 'Defender', whose strategy reflected a conservative, low-risk approach to a 'Prospector' that searched for new or high-risk opportunities. The

organization filtered environmental data based on its beliefs, and attitudes toward risk, and once an organization developed a strategy it was difficult to change (1978). They concluded, "current strategists are often the architects of past strategies. Because they have invested substantial time, resources, and interest in these strategies, the strategists would logically be more comfortable with a choice that closely parallels past strategy or represents only incremental alterations" (Pearce, 1985:240).

Contracting companies are organizationally complex due to the nature of the product and the risk inherent in the production process. Often construction organizations are horizontally differentiated into sales and marketing, estimating, purchasing, office management, operational support personnel, project supervision, and field personnel. Firms are vertically differentiated into functional, departmental, divisional, and corporate management structures. In addition, spatial separation exists between the organizational elements because of the unique, and remote, location for production (Male and Stocks, 1991). The complex organizational structure and typical production focus inhibit strategic change. As a result, many contractors place their strategic emphasis on improving production efficiency and effectiveness to improve their competitive position (Chinowsky, 2000; Kavanagh et al., 1978). In Miles and Snow's (1978) terminology many are 'defenders', seeking organizational stability and market penetration through relentless pursuit of cost control (Ramsey, 1989; Chinowsky, 2000).

3.4. STRATEGY FORMATION

Two basic models for strategy formation pervade business literature (Thompson & Strickland, 2001; Fredrickson, 1984). One of these is the synoptic, or planning model, which characterizes the strategy formation process as a formal, rational, and proactive approach (Andrews, 1971; Ansoff, 1965). The second model, labeled incremental or adaptive, depicts the strategy formation process as a reactive and serial progression to the strategic issues facing an organization (Mintzberg, 1973; Quinn, 1980b).

3.4.1. Synoptic Model

The synoptic model relies on decision and systems theory. It characterizes strategy formation as a rational and comprehensive process that proactively analyzes a firm's strategic options to determine strategy choice. This approach views the strategy formation process as one that entails a thorough investigation of the environment and the generation of a comprehensive list of strategic alternatives that are assessed for the probability of occurrence and likely impact on the organization. The consequences of the various alternatives are evaluated in light of the

organization's capabilities and goals, a strategy is selected, and an integrated plan is developed for the implementation of the strategic choice (Andrews, 1971; Ansoff, 1965; Hofer & Schendel, 1978; Lorange, 1979; Steiner, 1979; Grant and King, 1979, 1982). This model depicts strategy formation as a highly ordered process to proactively develop an explicit strategy that is then skillfully integrated throughout the organization (Mintzberg, 1978).

The synoptic model assumes that strategy formation can and should be controlled (Mintzberg, 1990). It is based on contingency theory that there is one best and unique strategy for the organization that is produced through a process of creative design (Stacey, 1993). This method of strategy formation is premised on the assertion that organizations can obtain their long-term objectives by selecting strategies that are acceptable to, and achievable by, the firm based upon the capabilities of the organization and their fit with anticipated environmental conditions (Stacey, 1993; Mintzberg, 1990; Hamel, 2000). It assumes that a comprehensive analysis will provide the basis to accurately predict the environment or that the organization has the ability to sufficiently influence the environment to allow the firm to reach its objectives (Mintzberg, 1973; Rhyne, 1985). The synoptic model asserts that planning for a desired future state requires a system of interrelated and interdependent decisions made in advance of action (Ansoff et al., 1970). In linear fashion strategies are proactively selected, an organization's systems and structure are adjusted accordingly, and the organization is directed toward some future identified goal (Chaffee, 1985; Hamel, 2000).

The basic assumptions of the synoptic model are that an organization has the ability to govern its environmental interaction and control its own destiny, and/or that the environment is predictable enough to enable the firm to plan a strategic response well in advance (Ansoff, 1970). These assumptions have been criticized by a number of theorists and researchers (Lindblom, 1959, 1979; Mintzberg, 1973; Quinn, 1980a; Wrapp, 1967, Stacey, 1993). Mintzberg and McHugh contend that this approach, which requires the firm to have the ability to predict or influence the environment and develop precise and shared intentions within the firm is difficult, if not impossible, to achieve (1985). The dynamics of the organization and the environment preclude a planned and rational approach (Stacey, 1993) because companies often operate in an unstable environment that renders a long-term rational plan invalid as conditions change (Kaplan and Norton, 1996). "Unlike the preparation of a fine banquet, it is virtually impossible for the manager to coordinate all impinging elements - internal decisions, external environmental events, behavioral and power relationships, technical and informational needs, and actions of intelligent opponents - so that they come together at any precise moment" (Quinn, 1980a:52).

Leontiades et al. (1980) labeled the synoptic approach 'steady state' planning and contends that it is only applicable for organizations in a stable environment. Environments where change is steady and predictable requiring only modest adjustment in organizational structure and policy (Mintzberg, 1973). Supporting this viewpoint is Fredrickson's (1984) study of the planning approach-performance relationship of 27 companies in an unstable environment. He classified a company's planning practices based upon interviews with 109 executives from the sample and correlated those results with company performance. Fredrickson concluded that planning comprehensiveness, or rational planning, was negatively related to performance in an unstable environment.

Additional critiques of the synoptic approach are that it envisions strategy formation as a process of conception that discounts the firm's drivers of past performance that have shaped its present strategy (Grundy, 1995) and precludes learning during the period of strategy implementation (Mintzberg, 1973, 1990; Quinn, 1980a). Because of the high level of firm resources consumed with this approach, others contend that the synoptic approach is only appropriate for large, complex and diverse organizations (Aguilar, Howell and Vancil, 1970; Hofer and Schendel, 1978). Stacey suggests that rational planning is appropriate for firms when faced with a crisis that renders their existing paradigm or organizational pattern invalid and thereby requiring a comprehensive and proactive reaction from the firm to reposition its strategic approach (1993).

3.4.2. Adaptive Model

In contrast to the rational approach, Bourgeois, (1980), Cyert and March (1963), Quinn (1980a), and Mintzberg (1994) assert that an organization's strategy is formed incrementally through the firm's continual adaptation to its environment. In this adaptive mode an organization's strategic decisions are made in serial fashion and through this adaptive process a strategy, or pattern of decisions, emerges (Mintzberg, 1987). Unlike the synoptic, or rational planning mode, where an organization's strategy is viewed as being proactively established well in advance to guide the firm's strategic actions. With the adaptive mode of strategy formation, clear and well-defined long-term organizational objectives do not exist, but rather the organization has vague or limited goals and adjusts its existing strategy by reacting to dysfunction's in organizational performance or perceived opportunities or threats in the environment. Strategy evolves as an organization attempts to improve its match with the environment (Strickland & Thompson, 2001).

Lindblom (1959) argued that rational planning models were unrealistic because organizations and the environment are too complex. Organizations are comprised of individuals and coalitions with differing and conflicting views and values, operating from distinct and changing power bases.

This organizational complexity, combined with the instability and unpredictable nature of the environment, precludes managers from evaluating all possible strategic decision alternatives available to the firm. Lindblom suggested that managers regularly evaluate only a limited number of the multitude of options available to the organization at any one point in time and often consider only those strategic alternatives that are closely aligned with past actions of the organization. Rather than executing a grand strategic plan, managers used a successive progression of limited comparisons that he termed the science of 'muddling through'.

Similarly, Bourgeois (1980) claimed that because of cognitive limitations managers preferred to take a sequential and incremental approach to strategy formation. He envisioned strategy formation as an evolutionary process where the dominant coalition searched until acceptable strategic decisions were identified without necessarily reaching agreement on specific long-term strategic goals. Change was initiated in a series of small steps that the organization would accept and support. Harrigan (1985) asserts that this strategy formation method gives an organization strategic flexibility. It promotes organizational learning and the repositioning or adaptation of existing strategy if the current strategic pattern is not appropriate for a changing competitive environment (Brews and Hunt, 1999).

Cyert and March (1963) argued that to improve the quality of the decisions that an organization must make concerning its strategic alternatives, logic dictates that these decisions should be made as late as possible consistent with the information available. They also characterized strategic behavior as incremental adaptation to dysfunctions in organizational performance caused by a misalignment with a firm's environment. This conscious incremental approach allows the organization to gain realignment with the environment through a series of organizational adjustments providing the firm time to overcome the political and informational barriers for change and create the personal and organizational commitment needed to effectively implement the selected strategic action. Proponents of the adaptive mode submit that present strategy is a result of behavioral patterns established over time and deeply rooted in organizational policy that may be difficult to change except through incremental adjustment (Starbuck, 1985; Chinowsky, 2001). As a result, firms utilizing an adaptive mode consider only a few alternatives to the status quo (Fredrickson, 1984).

In contrast to the rational mode where strategy is explicitly planned and then executed, the adaptive mode recognizes strategy formation as an iterative process where a firm is continually reassessing its fit with the environment (Quinn, 1980a). Strategy formation is less concentrated in top management and the firm is viewed as an open system more susceptible to environmental conditions (Chaffee, 1984, 1985). Rather than presume the organization has the ability to properly

assess, or influence, the firm's environmental interaction in accordance with a preconceived long-term plan, the adaptive mode characterizes strategy formation as a learning process (Kululanga et. al, 1999, Hatten and Rosenthal, 2001; Cross and Israelit, 2000). The organization probes the environment through a series of partial, or incremental, decisions and then adjusts strategy to create a better alignment with organizational skills and capabilities (Quinn, 1990a; Mintzberg, 1973; Kululanga et. al, 1999).

The adaptive mode of strategy formation is considered fitting for medium sized firms requiring less formal communication of strategic direction (Hofer et al., 1978) or when the identification and evaluation of alternate strategies is more closely linked with existing strategy (Pearce et al., 1985). Because of its reactive orientation, the adaptive mode is often viewed as a more appropriate choice in an unstable or complex environment (Mintzberg, 1973; Stacey, 1993).

Quinn (1980a) interviewed 80 individuals in top management positions from eight large firms in four different industries for his study on strategy formation. He found that most managers had long-term objectives for the company, but they moved toward those goals in an evolutionary manner. Their primary focus was to maintain a strong and growing core business. They would experiment in a limited fashion with side ventures as opportunities were presented that allowed incremental adaptation of organizational skills and capabilities to test the feasibility of strategic change prior to making major decisions concerning the reallocation of resources. He found that managers accepted the uncertainty of the environment and were highly sensitive to environmental information signaling the need for organizational adaptation. He concluded that management felt that the continual testing of strategic adaptations to the environment and the gradual implementation of strategy improved the quality of their strategic decisions, stimulated creativity, improved the firm's flexibility, and allowed the time necessary to develop organizational commitment.

Due to the variability of demand in the construction industry, Yates et al. (1991) and Junnonen (1998) submit that organizational flexibility for contracting entities is key for firm performance. Strategy formation for construction organizations is typically an iterative and adaptive process. The operating environment is competitive and unstable with an escalating rate of change making prediction of future environmental conditions difficult (Maloney, 1997, Lansley, 1987). Due to the nature of the product, a single project can require a considerable commitment of organizational resources limiting strategic options (Langford and Male, 1991). Project complexity and uniqueness encourages the development of specialized knowledge and skills to manage production risk, which in turn establishes the framework for strategic choices available to the firm. And any abrupt change in strategic orientation can extend an organization beyond its

internal capabilities (Junnonen, 1998). A contractor's strategic orientation is embedded in the series of past decisions and resource commitments. As a result, incremental adaptation to market pull is typically the driving force for strategic change, rather than contractor innovation or technology push (Heinly, 1990).

3.4.3. Synthesis - Synoptic and Adaptive

Mintzberg (1973) in his studies of a fifty year history of Volkswagenwerk and a twenty-three year period of the United States government concluded that strategic change was not regular or a neatly sequenced process. He found that organizations may be in a stable environment for years requiring only incremental adjustment of existing strategy and then be confronted with a high level of uncertainty or environmental change necessitating a significant realignment of the organization. He purports that strategy is influenced by two main patterns superimposed on one another. The cycle of any given strategy - conception, elaboration, decay, and death - overlaid on an environment that goes through period waves of change that may prematurely render an existing strategy invalid and thereby initiate a comprehensive and rational effort to reestablish strategic alignment. He concluded that strategic change does not take place in a continuous incremental fashion, but rather in occasional spurts followed by a period of continuity.

Wheelen and Hunger called these waves of change 'triggering events'. Lending support to Mintzberg's findings they contend that large firms often follow a strategic orientation for 15-20 years making only incremental adjustments to improve desired performance. Success breeds organizational complacency until the firm experiences one of these triggering events, such as a large performance gap, a new CEO, or some external threat rendering exiting strategy inappropriate and forcing management to reassess its strategic position (Wheelen and Hunger, 1998, 2001; Macmillian et. al., 2000).

Quinn (1980a) found that even in firms practicing an adaptive process, most also had a rational planning structure that aided managers in important ways. It extended time horizons, encouraged an integrated assessment of firm commitments, increased planning participation, and provided a better framework to evaluate strategic proposals. He found that the synoptic, or rational planning mode, often institutionalizes an incremental and adaptive approach to strategy formation. Based on his study he concludes, "all effective strategy formulation must deal with both the analytically quantifiable factors present and the informational shortcomings, uncertainties, unknowables, and human psychological issues that dictate incrementalism." (Quinn, 1980a:43).

Management establishes organizational goals and selects a strategy that is generally implemented incrementally in a series of steps (Miles et al., 1978) and different strategy modes can, and sometimes should, be used within the same organization (Thompson and Strickland, 2001). The difference between the adaptive and synoptic mode of strategy formation is largely one of analytical comprehensiveness in the evaluation of strategic alternatives and the coordination of the integration of those decisions into the firm's policies and operational activities (Fredrickson, 1984). As depicted in Figure 3.4.1, realized strategy is often a blend of intended and deliberate strategy with the emergent strategy of a firm (Mintzberg, 1994).

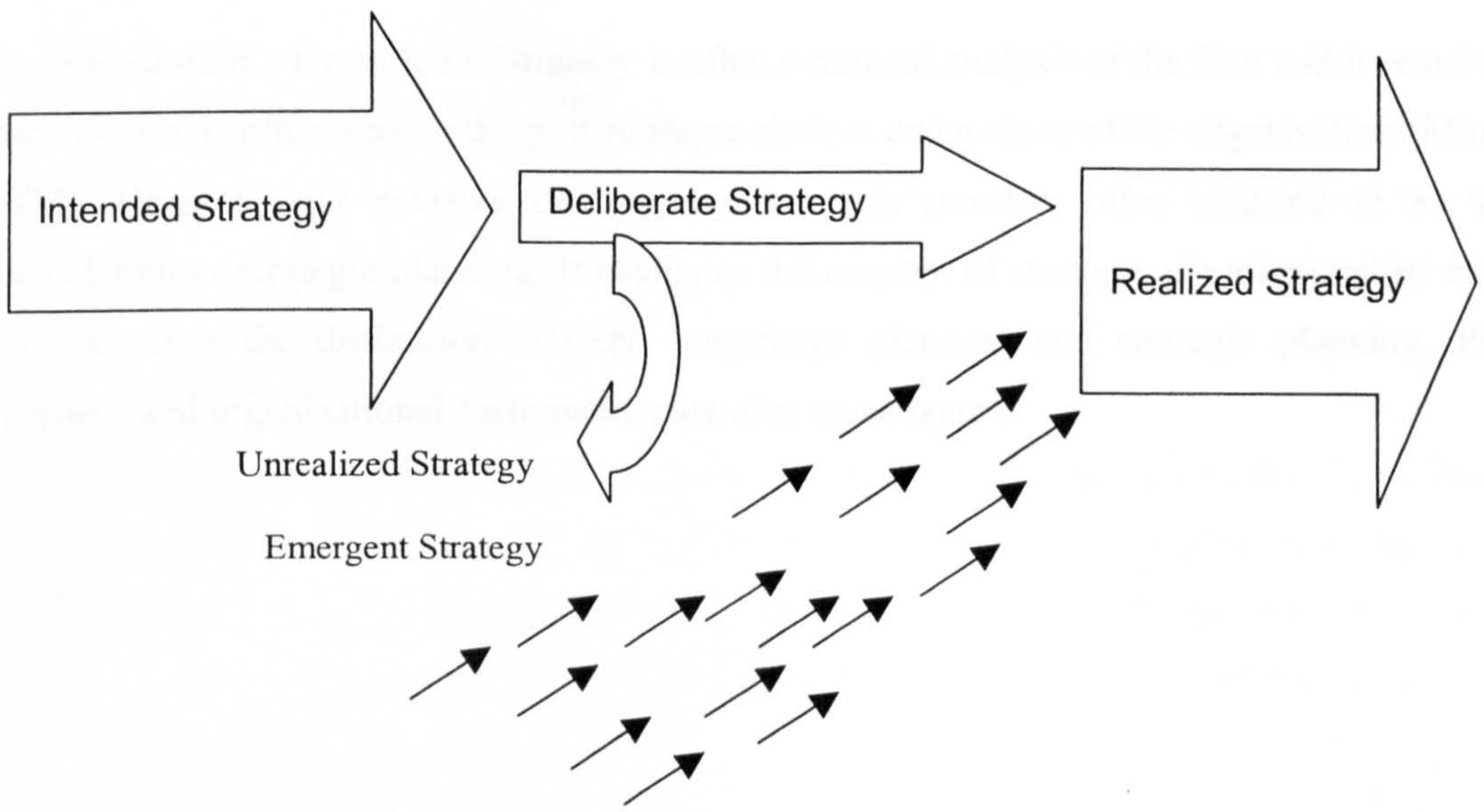


Figure 3.4.1 Forms of Strategy
reprinted from Mintzberg, 1994:24

Mintzberg, a strong proponent of the emergent, or adaptive, mode of strategy formation also recognizes the need for an organization to incorporate the synoptic, or deliberate, mode when forming strategy. He notes, "in practice, or course, all strategy making walks on two feet, one deliberate, the other emergent. For just as purely deliberate strategy making precludes learning, so purely emergent strategy making precludes control. Pushed to the limit, neither approach makes much sense. There is no such thing as a purely deliberate strategy or a purely emergent one. No organization - not even the ones commanded by those ancient Greek generals - knows enough to work everything out in advance, to ignore learning en route." (Mintzberg, 1987:69)

3.5 SUMMARY

A firm's strategy is the underlying rationale that governs, or influences, the organization's strategic choices (Stahl and Grigsby, 1992, 1997) and it is the integration, or reinforcing pattern,

of these strategic choices throughout an organization that defines a firm's strategic intent (Rumelt et al., 1994). It involves choices that are considered important for the overall welfare of the organization, have a long-term effect on the success of a firm, and are often difficult to reverse (Ackoff, 1970; Chaffee, 1985; Macmillian et. al., 2000).

Strategy exists at multiple levels of the firm and it is the integrative nature of a firm's corporate, business unit, and functional strategies that influence the success of its strategic intent (Hofer et al., 1988). And the strategic intent for a contracting organization is manifested in the services and projects selected (Grundy, 1998).

An organization's formation of strategy is often a rational analysis of the firm and its environment that is heavily influenced by the past strategic choices and actions of the organization (Mintzberg, 1994). Chapter Four reviews this rational analysis process, often referred to as strategy formulation or strategic planning. It evaluates the concept of strategic planning and its evolution and examines the distinction between long-range planning and strategic planning. Planning elements and organizational participation are also investigated.

CHAPTER FOUR:

STRATEGY FORMULATION & IMPLEMENTATION

4.1 INTRODUCTION

Strategy is concerned with favorably positioning a firm's resources and capabilities within its operating environment for sustained profitability. For construction organizations it involves choice concerning the operational scope of the business, resource allocation, selection of a competitive approach, and determination of the optimal synergy between operating units (Ramsey, 1989). It is developed at multiple levels of the firm but the competitive strategy of an organization is formed at the business level and rooted in a firm's competitive advantage. At the heart of a firm's competitive advantage is the selection and pursuit of one of two generic strategies – cost or differentiation (Porter, 1985).

Due to the volatility of the marketplace, the complexity of production, and the organizational constraints imposed from past strategic decisions concerning products and services, construction firms often develop and implement strategic plans in an incremental and adaptive fashion (Ramsey, 1989). The planning process for formulation of a firm's organizational strategy is the focus of this chapter.

4.2. STRATEGIC PLANNING CONCEPT

The concept of strategic planning, in a business context, crystallized during the mid- 1900's in large part from the work at Harvard (Porter, 1987). Its roots lie in the basic management function of planning and its thrust is the extension of the organization's planning effort several years into the distance future (Steiner, 1969). It has evolved from solely an extension of a firm's past efforts and trends into the future to the charting of an organization's course in a complex and changing environment. Strategic planning has an expanded focus beyond an internal assessment of capabilities and desires to an extended evaluation of the organization's external environment. It has progressed from a planning effort with participation limited to top management to one that involves key individuals throughout the entire organization (Bryson, 1995; Drucker, 1980; Steiner, 1979; Ansoff et al., 1990; Macmillian et. al, 2000).

4.2.1. Historical Perspective

The concept of strategic planning developed from the work at Harvard in the 50's highlighting the importance of having a corporate strategy (Porter, 1987). Acceptance of the need for a corporate strategy invited management to 'plan' for its existence, which created growing adoption of strategic planning in the early 60's (Ringbakk, 1972). This early form of strategic planning was primarily directed toward corporate planning as exemplified by Ansoff in his 1965 book titled "Corporate Strategy" (Taylor, 1975). Top management of diversified companies, rather than managers of the individual businesses, drove the strategic planning process. The planning approach was in large part based on portfolio planning techniques, treating the SBU's like investments or stock selections (Porter, 1987).

The decade of the 70's saw a surge in the acceptance and use of strategic planning (Higgins, 1981). However, Ringbakk's (1972) study of 90 companies in the US and Europe found that successful strategic planning did not come easy. Evaluation and prediction of an organization's future performance in an uncertain and unstable environment presented difficult challenges. Similarly, Kukalis's (1988) sampling of 400 firms from manufacturing, utilities, and insurance found wide use of long-range planning practices with a median year for adoption of 1975. However, successful utilization of the planning process was limited with only a small proportion of the firms in his study reaching the stage where corporate planning had become an intregal part of the management system. In addition, Steiner and Scholhammer (1975) surveyed 460 companies in 6 nations to determine the causes for strategic planning's lack of success and the planning pitfalls to avoid. The primary reasons identified by their study included environmental uncertainty, lack of top management commitment and involvement, limited planning participation and organizational commitment, and the centralization and bureaucracy of the planning process itself.

Al-Bazzaz and Grinyer (1980) noted that the 1974-75 economic turbulence created greater dissatisfaction with strategic planning. Wilson (1994) purports that the lack of success during this decade was because corporations were overly concerned with the extrapolation and manipulation of internal financial data rather than evaluating anticipated environmental conditions and developing a firm's strategic intent to optimize performance. The planning effort itself was largely a staff driven exercise to develop 'long-range' plans rather than a strategic planning process to select firm strategy and develop implementation plans (Al-Bazzaz and Grinyer, 1980).

Long-range planning (LRP), as opposed to strategic planning, assumes that the organization is essentially a closed system operating in a stable or predictable environment (Rhyne, 1985). The

future is made explicit with forecasts based upon past data and trends of the firm's markets and competitors. Planned future performance is primarily an extrapolation of past performance and trends into the future (David, 2001; Ansoff, 1977a). With LRP the future is expected to be predictable (Ansoff et al., 1990) and planning decisions are made on an operational rather than strategic perspective (Below et al., 1987). Rhyne's 1985 study of the planning processes of the Fortune 1000 found the use of 'long-range' planning widespread, but fully two-thirds of the sample were not performing strategic planning. A study conducted by Ang and Chua in 1979 sampled 500 of the largest US companies and found that 94% had some form of long-range planning. However, 78% of those that had initiated long range planning were using internally focused, financial planning models that basically extrapolated past performance data to determine future results.

Past performance is certainly an indicator of future performance for the organization, but only if environmental conditions remain stable (David, 2001; Hamel, 2000; Ansoff, 1977b). In contrast to long-range planning, strategic planning assumes the organization is essentially open and interacts on multiple levels with a dynamic and changing environment. The environment is assumed to be uncertain and the planning process itself is viewed as a vehicle to identify emerging threats and expose new areas of opportunity (Rhyne, 1985). Strategic planning assumes the future will be different than the past and extrapolation is replaced by elaborate and detailed strategic analysis (Ansoff et al., 1990). It's a process that encourages management to think more systematically and intensely about the relationship between the firm and its environment (Kukalis, 1988).

Continued environmental turbulence magnified the need for strategic planning and its growing acceptance (Ansoff et al., 1990). Rule (1987) found 87% of Canada's top 300 firms utilized some form of strategic planning and Mills' (1985) study of 224 US companies with sales greater than fifty million noted that eighty-nine percent of the firms practiced strategic planning. In both studies usage increased as firm size became larger. A study a decade later by Hasso (1996) also found widespread use of strategic planning in his study of sixty-two small to medium sized engineering and construction firms operating in the northeastern US. This study's sample consisted of firms with an annual volume of between 50 to 300 million. His findings indicated that eighty-four percent of the firms used some form of long range strategic planning.

In addition to widespread use, the focus of strategic planning has shifted. Strategic planning has moved away from a corporate function with a large staff-driven process detached from the operating divisions and has been driven deeper into the organization toward the strategic business units with corporate involvement and responsibilities minimized (David, 2001; Wilson, 1994).

The concept has moved beyond the creation of an initial strategic plan to an expanded focus on the development of tactical plans that guide day-to-day actions for implementation, evaluation, and control (Wheelen and Hunger, 1998; Macmillian et. al., 2000). Strategic planning "is inextricably interwoven into the entire fabric of management" (Steiner, 1979) and as such has developed conceptually into strategic management (Wheelen and Hunger, 2000).

4.2.2. Strategic Planning in the Construction Industry

The construction industry is highly fragmented and consists of a large number of small firms. Empirical evidence on the use and substance of strategic planning for contractors is sparse because most studies involved large firms, predominately in manufacturing (Weston, 1996). However general industry studies have shown that larger companies are likely to have a formal strategic plan (Rule, 1987; Mills, 1985) whereas smaller firms predominately rely on informal communication of strategic objectives emanating from the leadership of the firm (Michael, 1990; Wilson, 1994; Wheelen et al., 1998).

Pienaar's 1988 study of construction firms in South Africa surfaced the lack of formal planning in small construction firms. A majority of the respondents to this study had annual revenue of less than fifty million. He found a 'low' degree of formal planning used by the respondents. Weston's study involving small contractors in the UK also found that a majority did not have 'formal' strategic plans (1996). Conversely, Hasso's study of US engineering and construction firms with annual revenues in excess of 50 million found widespread use of formal strategic planning. Similarly, Hillebrandt and Cannon's (1990) investigation of the UK construction industry found strategic planning a major management component for large firms. However, in both of these studies the researchers note that many of the firms had not effectively developed their strategic planning process.

Construction companies often develop and implement strategy that is largely based upon the experiences of senior management and/or the intuition of the CEO/president (Langford and Male, 1991: Schleifer, 1990). Strategic planning is often more informal and unstructured (Edum-Forte et.al., 1994). Reasons cited for the lack of effective use of strategic planning within the construction industry include the lack of planning expertise (Weston, 1996) and the traditional short-term operational focus of management (Betts and Ofori, 1992; Edum-Fotwe et. al., 1994). The low capital investment required for most contractors does not encourage long-term planning (Hillebrandt & Cannon, 1990) and the volatility of market demand limits forecasting accuracy and the effectiveness of long-term planning (Hillebrandt and Cannon. 1990; Symons, 1995; Sayid-Rajab, 1981).

4.2.3. Conceptual Definition

"Planning is a basic organic function of management. It is the mental process of thinking through what is desired and how it will be achieved" (Steiner, 1969:8). It has an "orientation towards analysis – toward systematic, explicit, recoverable thought processes" (Mintzberg, 1981:321). A plan is a personal or organizational commitment to a predetermined course of action in the future (Lebreton et al., 1961). Planning is a process that is done in advance of action and involves anticipatory decisions concerning future events (Ackoff, 1970). Planning is recognition of the ability to control the future consequences of present decisions and actions. At its base is the assumption that the future will be different than without intervening action (Wildavsky, 1971). Planning involves choice of action through a series of integrated decisions that elevates the practitioner's understanding of the interrelationship and purpose of individual decisions or actions (Steiner, 1969).

"Strategic planning is the process of determining the major objectives of an organization and the policies and strategies that will govern acquisition, use, and disposition of resources to achieve those objectives" (Steiner, 1969:34). The planning process compels the organization to make fundamental decisions of major importance that shape and guide a firm's actions. Decisions that have an enduring effect on the success, or failure, of a firm involving choice that may be difficult to alter (Bryson, 1995). Strategic planning is a process intended to elevate management's understanding that "all institutions live and perform in two time periods: that of today and that of tomorrow. Tomorrow is being made today, irrevocably in most cases" (Drucker, 1980:41). While firms may attempt to identify the 'right' environmental fit, identifying a 'perfect' strategy is not what is important. Rather a strategy that enables superior performance relative to a firm's competitors (Ohmae, 1982; Hamel, 2000).

Strategic planning "is the continuous process of making present entrepreneurial (risk-taking) decisions systematically and with the greatest knowledge of their futurity; organizing systematically the efforts needed to carry out these decisions; and measuring the results of these decisions against the expectations through organized, systematic feedback" (Drucker, 1974:125). Strategic planning's focus is long-range and seeks to identify a course of action for the firm in the context of an environment that is complex and difficult to predict (Steiner et al., 1983). Choice of action, or inaction, whose consequences may not be fully realized till well into the future (Bryson, 1995; Collins and Porras, 1994).

The essence of strategic planning is the allocation of resources (Hamermesh, 1986b) and the recognition of a firm's inseparability from its environment (Chaffee, 1985). It involves a

comprehensive and systematic identification and evaluation of present and anticipated environmental opportunities and threats in light of the organization's perceived strengths and weaknesses with the goal of optimizing organizational performance (Thompson and Strickland, 2001; Steiner et al., 1983; Ansoff, 1977). Mintzberg (1987, 1989) views strategy formulation as more of a craft, or a learned skill, requiring management dedication with an attention to environmental and organizational details. Unlike operational planning where management is focused toward solving a known problem, in strategic planning the problem, or opportunity, is often unclear and has yet to materialize (Thompson and Strickland, 2001; Mitroff et al., 1977). A plan should be a compass, not a detailed map. "It is not an end, it only provides a sense of direction, a means to a variety of possible ends." (Hayes, 1985:118).

4.3. STRATEGIC PLANNING PROCESS

The strategic planning process revolves around three key variables – environment, organization and leadership (Mintzberg, 1978). These components are highly interdependent and inseparable (Byars, 1984). An essential component is the ability to anticipate future events and environmental discontinuities. To go beyond just the extrapolation of the variables of past performance such as sales, costs, earnings, and the economy (Ansoff et al., 1990). This requires a broad and effective method for gathering information, the capability and desire to evaluate strategic alternatives, and the ability to visualize the future implications of strategic choice (Bryson, 1995). Strategic planning is a balance among management intuition and judgment, organizational values, and analytical processes (Steiner, 1983).

Andrew (1971) presented a conceptual framework for the development of a firm's strategic plan. He defined the strategic planning process as an external appraisal of the environmental threats and opportunities facing the firm in conjunction with an internal appraisal of the organization's strengths and weaknesses. Matching the firm's distinctive competencies with its external environmental conditions was viewed as the most important consideration. This assessment of "fit" coupled with managerial values and the firm's perceived social responsibility lead to the creation, evaluation and eventual choice and implementation of the organization's strategy. Mintzberg (1994) characterizes this approach as the basic "design school" model depicted in Figure 4.3.1.

Ansoff's (1965) strategic planning model contained essentially the same primary elements as the "design school" model. However, as opposed to the conceptual model presented by the design school, he characterized strategic planning as an iterative process involving a regimented and

routine procedure containing numerous steps and decision requirements. Both models stressed plan development and placed lesser emphasis on implementation and monitoring.

Hofer and Schendel (1978) contend that all strategic planning models explicitly or implicitly include: an assessment of current strategy and the vision of the firm, environmental scanning and analysis, assessment of internal resources, establishment of firm objectives, and generation and evaluation of strategic alternatives leading to strategy choice.

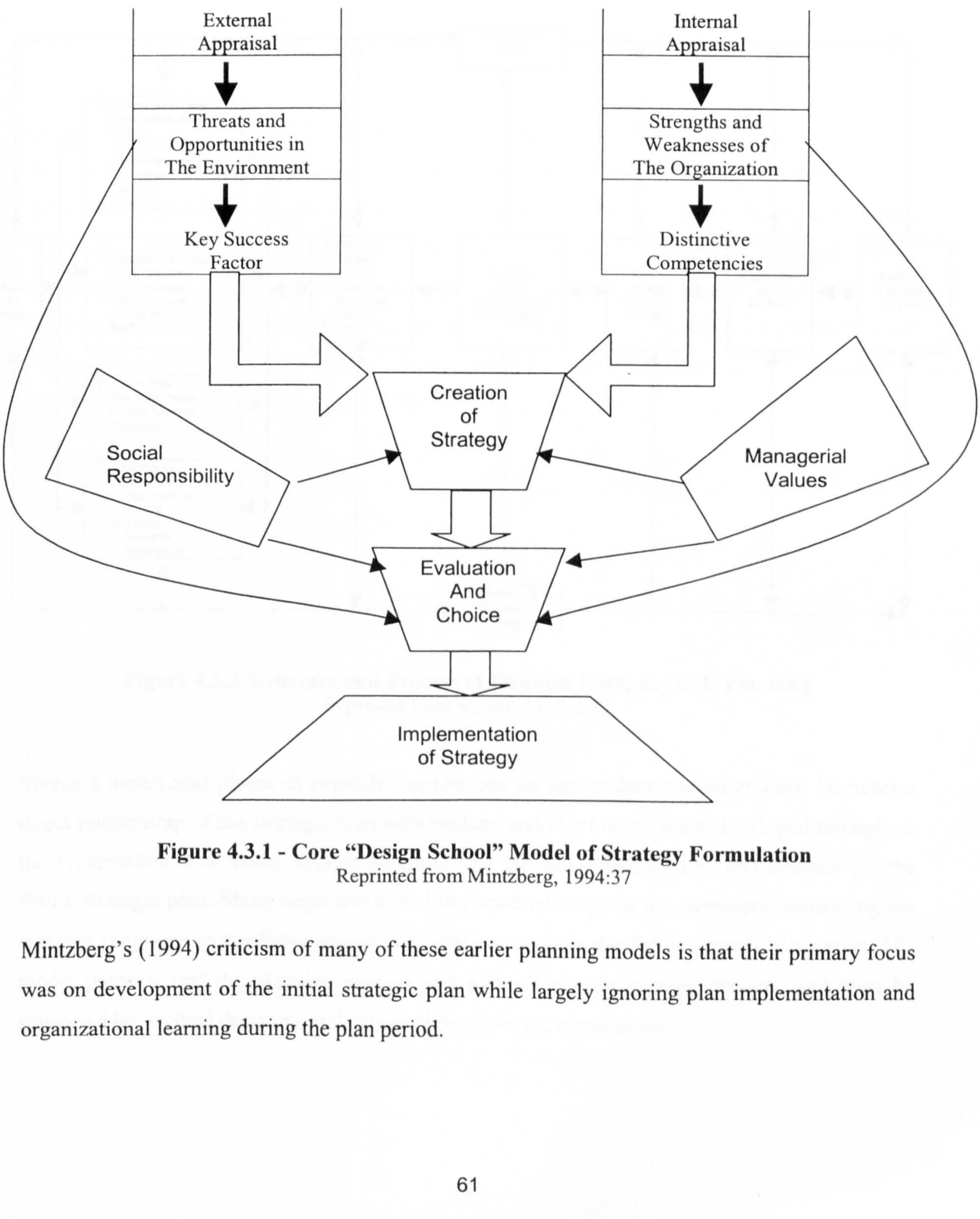


Figure 4.3.1 - Core "Design School" Model of Strategy Formulation
Reprinted from Mintzberg, 1994:37

Mintzberg's (1994) criticism of many of these earlier planning models is that their primary focus was on development of the initial strategic plan while largely ignoring plan implementation and organizational learning during the plan period.

Steiner's (1979) planning model (Figure 4.3.2) extended management's planning considerations to include all of the firm's major stakeholders. Rather than limiting the strategic focus to management's goals, values and aspirations, he contended that the planning process should include the expectations of the major parties within, and external to, the organization. In addition to social responsibility, the planning process needed to include the expectations of stockholders, customers, suppliers, and other "external" parties essential to success of the organization. Likewise, within the organization, the expectations of other managers, staff, and hourly workers needed to be taken into consideration during the development of the plan.

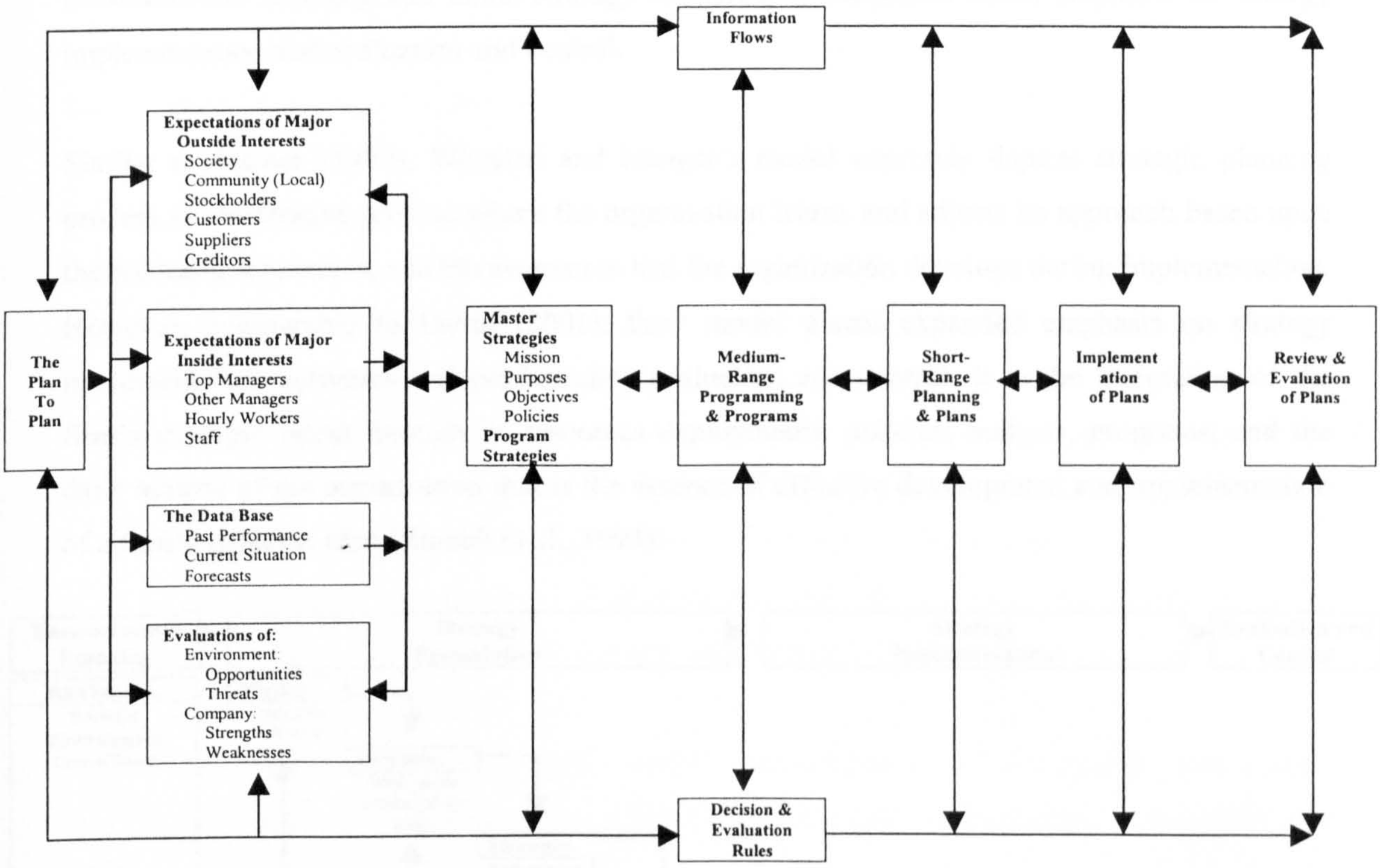


Figure 4.3.2 Structure and Process of Business Companywide Planning
Reprinted from Steiner, 1979, p 17

Steiner's model also places an expanded emphasizes on the implementation process. He notes a direct relationship of the strategic plan with medium and short-range plans developed throughout the organization. His model depicts programs and policies flowing from, and dictated by, the firm's strategic plan. Short-range action and implementation plans are developed supporting the required programs and policies deemed necessary to achieve the firm's strategic objectives. His model purports that the planning process and a firm's chosen strategy impacts, and must be supported by, tactical decisions and actions throughout the organization.

However, Steiner noted that an 'absolute' model for strategic planning is not practical because of the uniqueness of each organization and its environmental interrelationship. He stressed that there is no single or 'best' arrangement because "planning is so intimately intertwined with the whole process of management and entire organizational structure of a business that for each organization planning is tailored to particular circumstances" (1969:108).

Wheelen and Hunger (1998) developed a planning model (Figure 4.3.3), which they titled the "Strategic Management Model". Like the earlier models it addresses the elements of environmental scanning and initial strategy formulation, but places added emphasis on strategy implementation and evaluation and control.

Similar to Steiner (1979), Wheelen and Hunger's model expressly depicts strategic planning process as an iterative process where the organization learns and adjusts its approach based upon the feedback it receives, and the awareness that the organization develops during implementation. However, comparable to David (2001), their model places expanded emphasis on strategy implementation activities and performance evaluation and control. It is the integration of the firm's strategic intent through its resources deployments, policies, budgets, programs, and the daily actions of the organization that is the essence of effective development and implementation of a firm's strategic plan (Rumelt et al., 1994).

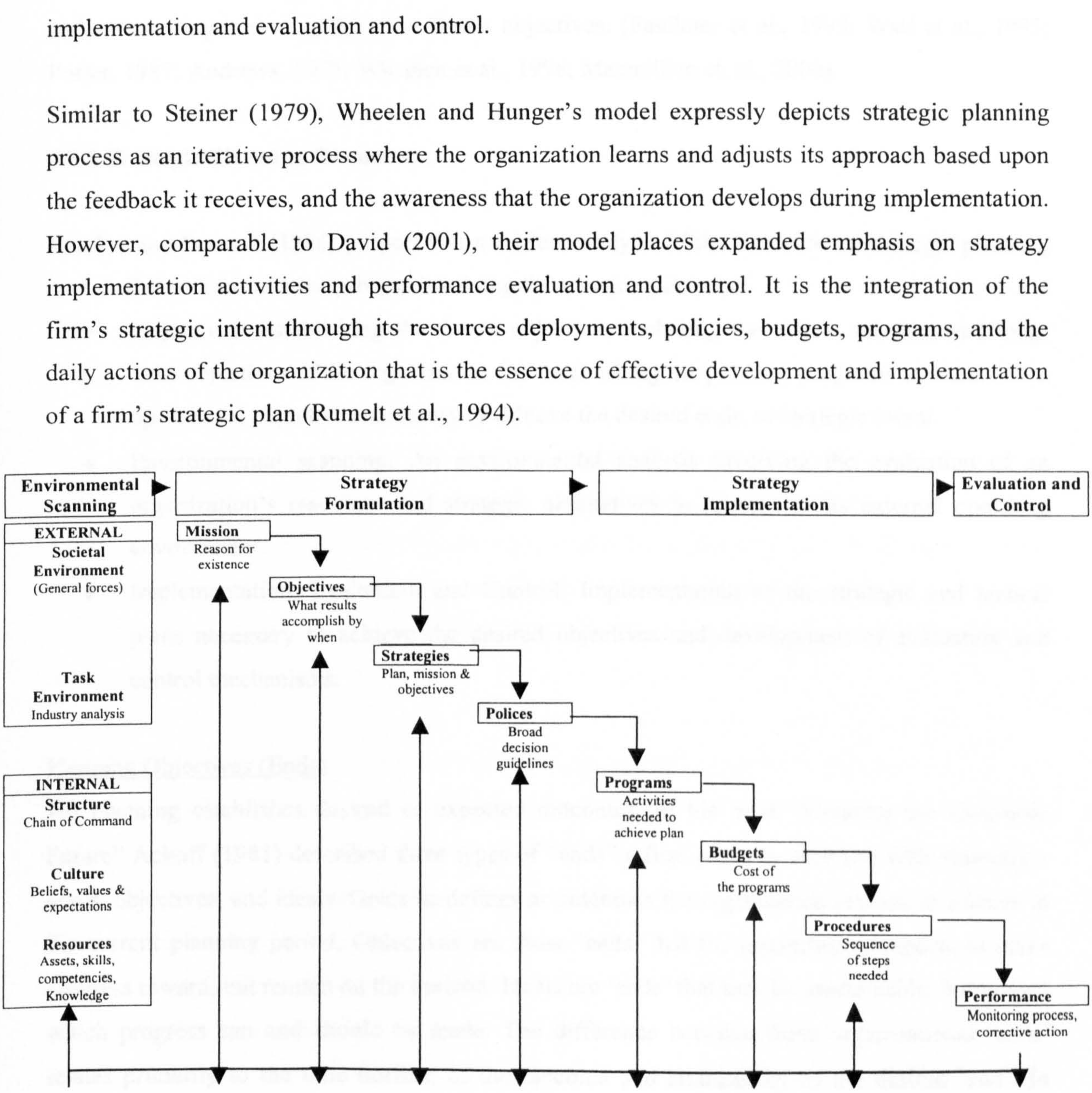


Figure 4.3.3 Strategic Management Model
reprinted from Wheelen and Hunger (1998:9)

Expressly depicted in Steiner's and Wheelen et al. models, and often implied in earlier models, is the proposition that strategic planning is not a process that "occurs once a year, according to a rigid routine" (Porter, 1987:21) or one that is completed in "three days once a year at a New England resort" (Loomis, 1988:3). Strategic "planning should be a continuous process" (Ackoff, 1970:5) that is intimately intertwined in management's approach and the organization's continuing actions and behavior (Thompson and Strickland, 2001; Kukalis, 1988). It's not a static process or concerned only with devising 'grand' strategy, but a process also focused on policies, programs, and implementation activities essential for execution. It's an iterative process that utilizes feedback to provide continual refinement and/or redirection of the firm's strategic intent and actions required to achieve the firm's objectives. (Faulkner et al., 1995; Wall et al., 1995; Porter, 1987; Andrews, 1971; Wheelen et al., 1998; Macmillian et. al., 2000).

4.3.1 Strategic Planning Elements

Bracker and Pearson (1986) purport that a content analysis of the literature on strategic planning reveals that it is an iterative process involving three major elements:

- Objectives: Establishing the firm's objectives including the vision, mission, and long-term objectives of the organization and establishing the policies, programs and short-term operational objectives necessary to achieve the desired ends, or strategic intent.
- Environmental scanning: An environmental analysis involving the evaluation of an organization's resources and strategic alternatives in relation to its external operating environment.
- Implementation, Evaluation and Control: Implementation of the strategic and tactical plans necessary to achieve the desired objectives and development of evaluation and control mechanisms.

<u>Planning Objectives (Ends)</u>

All planning establishes desired or expected outcomes. In his book "Creating the Corporate Future" Ackoff (1981) described three types of "ends" a firm seeks to establish with planning – goals, objectives, and ideals. Goals he defines as outcomes the organization expects to achieve in the current planning period. Objectives are those 'ends' that the organization expects to make progress toward, but remain on the horizon. Ideals are 'ends' that may be unattainable, but toward which progress can and should be made. The difference between these organizational 'ends' relates primarily to the time horizon of the outcome and attainability of the desired 'end'. In strategic planning Ackoff's 'ideal' ends are generally associated with vision – the desired state of the organization in the distant future (Hinterhuber and Wolfgang, 1992). "Vision is seeing the

possibilities – not just where you are, but where you want to be" (Sandy, 1990:7). It's not a wish list of impossible ends, but rather outcomes the firm aspires to attain (Wall and Wall, 1995). It's "a beacon for guiding resource allocation and strategy selection" (Thompson and Strickland, 2001:7)

Hamel and Prahalad (1994) submit that an effective vision is grounded on deep insight into environmental trends such as technology, demographics, technology, and evolving customer desires and expectations. They assert that the primary intent of vision formulation is to expand management's perspective of possibilities for the organization by removing the often self-imposed limitation of viewing the future through exiting markets and environmental conditions.

Vision provides the desired direction for a firm. It acts as an organizational compass (Hinterhuber et al., 1992). It is often developed by the CEO or senior management and then "shared, explained, and emotionalized, in the name of getting others to help make it happen" (Sandy, 1990:7). A vision's purpose is to engage people's emotional commitment, cognitive attention, and active support in pursuit of an ideal future state (Michael, 1990). "An organization which just perpetuates today's level of vision...has lost the capacity to adapt...and it will not be capable of survival in a changed tomorrow" (Drucker, 1967:57)

The organizational impact that vision can have is evidenced from a study of 371 business owners undertaken to identify entrepreneurial traits that correlated with firm success. This study concluded that organizational vision had a significant relationship with firm performance (Baum, 1994). However, Albrecht (1992) submits that few large organizations articulate a unique or compelling vision. Most are vague and meaningless statements providing limited orientation for the organization.

Supporting a firm's vision is a statement of organizational philosophy and purpose, or its mission statement. It establishes organizational philosophy by identifying the firm's values, beliefs and guidelines with which to conduct business activities (Byars, 1984). A mission statement broadly defines an enduring statement of purpose. It identifies a firm's distinctive scope of operations (Pearce, 1982), serves as a focal point for major planning decisions at all levels (Byars and Neil, 1987), and stimulates creative thought (Below et al., 1987). "A clearly defined mission will foster innovative ideas and help others understand why they need to be implemented – however much they fly in the face of tradition" (Drucker, 1989:90). "A mission statement should play the same role in a company that the Holy Grail did in the Crusades" (Ackoff, 1987:31).

A study by Pearce and David (1987) of Fortune 500 firms revealed mission statements having common components of philosophy, self-concept, public image, location, technology, and concern for survival. David (1989), in his sampling of the "Business Week 1000" identified two more components – customer and product/service.

A clear definition of the purpose, or mission, for an organization provides direction and clarity to business objectives and the near-term actions required to achieve the desired strategic outcomes (Drucker, 1974). Without a clear statement of mission, a firm's short-term actions may be counterproductive to long-term interests (Collins and Porras, 1994). Kimball's study on company mission statements concluded that higher levels of profitability correlated with organizations having a stronger understanding of company mission (1992).

Although a mission statement provides managers with a unity of direction, promotes shared expectations, and consolidates values it is an easily slighted task (Pearce, 1982). The Pearce and David (1987) study of large firms revealed only 60% had a written statement and David's (1989) study of a population comprising smaller firms showed a reduced utilization of 41%. Even a study by Byars and Neil (1987) involving 208 members of the Planning Forum, the world's largest membership organization focused on planning and strategic management, found only 68% had a written mission statement, although most of those without one indicated they had an informal, word-of-mouth philosophy. Chinowsky (2000) investigation of AEC firms had similar findings - 73% of large firms had mission statement versus only 35% for small firms.

An organization's objectives are those 'ends' that the organization expects to make progress toward, but may remain beyond reach at the end of the planning period (Ackoff, 1981). If set too low the absence of challenge may breed organizational apathy and if unattainable frustration or desperation may develop (Pennington, 1972). However, Konchar and Sanvido's (1999) study of fourteen 'high-performance' construction companies concluded organizations should set risky and 'audacious' goals to challenge and simulate internal drive and development. Collins and Porras's 1994 study of 'visionary' companies had similar conclusions.

Strategic objectives are action commitments to support and carry out the firm's mission (Byars, 1984). They convert the organization's mission and vision into operational performance targets (Thompson and Strickland, 2001). Objectives provide direction for the concentration of effort and the mobilization of the organization's resources to reach the future desired state (Drucker, 1977). Objectives should be narrowly focused toward a firm's sustainable competitive advantage (Loomis, 1988) and identify the few specific and critical drivers of the organization's strategic intent (Kaplan and Norton, 1996). Without well-defined objectives, a company moves erratically

as change dictates (Cook, 1988). Rule's (1987) study of Canadian firms found that the areas of highest impact for organization success were a clear definition of business purpose (mission), and a firm understanding of the critical success factors, or strategic objectives, for the firm. The importance of consensus on a firm's ends is supported by a study conducted by Bourgeois (1980) of twelve non-diversified public corporations. He found that ends and means agreement was positively correlated with a firm's economic performance.

Mintzberg (1993) submits that the primary objectives of a firm are survival, efficiency, control, and growth. Hillebrandt and Cannon (1990) submit that planning objectives for contractors typically focus on financial, product and/or service quality, and project selection. A contractor's strategic objectives are its 'map' guiding organizational choice of, and within, its operating arena (Chinowsky, 2001). Financial objectives clearly have an overriding importance (Grinyer and Norburn, 1974), but Tilles (1963) cautions against limiting the dimension of objectives. "Both money and product policy are a part of a statement of objectives; but it is essential that these be viewed as the concrete expressions of a more abstract set of goals – the satisfaction of the needs of significant groups which cooperate to ensure the company's continued existence" (Tilles, 1963:113).

Strategic objectives must be able to be converted into programs and specific operational targets to be achieved during the planning period (Drucker, 1977) and organizational policies providing specific guidelines and limits to individual action (Quinn, 1980a). The operational goals in turn should spawn performance targets for each manager (Wheelen et al., 1998)

Environmental Assessment

An assessment of a firm's environment requires an analysis of the firm's internal strengths and weaknesses in relation to the perceived opportunities and threats in its external-operating environment. This process is often referred to as a SWOT analysis; strengths-weaknesses-opportunities-threats (Pearce and Robinson, 1985).

An internal analysis of an organization's strengths and weaknesses entails an assessment of the firm's assets including such issues as management abilities, human resource expertise, operational competence, financial position, marketing prowess, organizational structure and company culture (Stahl and Grigsby, 1992). A strength is a resource or skill that provides the firm an advantage relative to its competitors, whereas a weakness is a limitation or deficiency which impedes effective performance (Pearce et al., 1985). "One gets paid only for strengths; one does not get paid for weaknesses" (Drucker, 1980:65) and therefore strategy selection must match the strengths of the firm (Ansoff et al., 1990). Effective executives build on their strengths, the

organization's strengths, and the strengths of the present and projected position of the firm (Faulkner and Bowman, 1995). "Competitive strategy involves positioning a business to maximize the value of the capabilities that distinguish it from its competitors" (Porter, 1980:47).

The challenge facing each organization in its evaluation of its strengths and assessment of its weaknesses is the lens through which these attributes are viewed. Managers often have similar experiences and tend to view their environment in a similar fashion (Faulkner et al., 1995). Stevenson's study of 50 managers from six different companies found that managers' perceptions of the firm's strengths and weaknesses were strongly influenced by factors attributable to the individual rather than the company. He also found that "a pattern of greater optimism exists at higher organizational levels" (1976:61).

In spite of this personal bias which may lead to a faulty conclusion, Hrebiniak and Snow's (1982) study of 49 different organizations in thirteen different industries highlighted the power of organizational agreement and focus on its attributes. Their study found that performance was related to management's agreement on the organization's strengths and weaknesses, whether or not these attributes existed within the organization precisely as perceived by management. Consensus on strengths and weaknesses facilitates agreement on means, which is critical for organizational success (Bourgeois, 1980).

Most every strategic planning model is predicated on the supposition that a successful organization aligns its resources with its external environment (Macmillian et al., 2000). Analyzing and projecting a firm's performance is predicated on understanding the organization's decisions and actions and how they relate to its environment (Georgantzas et al., 1995; Steiner, 1979). Planning models are based on the premise that a firm must position its resources to take advantage of, or create, present and emerging opportunities while at the same time guard against existing or developing threats to their success and survival (Stubbart, 1985). The assessment of an organization's environment requires an evaluation of such issues as the economy, technological change, regulatory expectations, social and demographic trends, and a firm's competitive position. A firm's threats present an unfavorable situation or impediment to the firm's current or future desired state whereas opportunities are favorable situations that exist presently, or are expected to materialize during the planning period (Pearce et al., 1985). Drucker (1964) identified three types of opportunities; 1) those that are additive and more fully exploit an organization's existing strengths, 2) opportunities that compliment the present business focus, and 3) changes in the fundamental characteristics and capacities of the business, or breakthroughs.

Accurate assessment of a firm's environment requires the collection of appropriate environmental data through environmental scanning and the accurate interpretation and analysis of that data to properly position the organization (Albrecht, 1994; Rhyne, 1987). It is a process of assembling 'competitive intelligence' to identify opportunities, gain competitive advantage, and improve short and long-term planning activities and objectives (Ngowi et al., 2000).

Aguilar's study of the environmental scanning practices of 137 managers from 41 companies found that managers used a number of different scanning modes ranging from undirected scanning to highly structured formal searches for environmental data. He concluded that the information available to a firm is boundless. "In practice, an organization can attend to only a small fraction of the information that keeps pouring in from its environment" (1967:24). "The difficulty is not that there is not enough information, it is that there is too much information, and relationships are too complex and changing too fast" (Stubbart, 1985:71). The challenge a firm faces is the collection and adequate evaluation of data that is available, reliable, and relevant to the organization's performance (Drucker, 1967; Rhyne, 1987). Ansoff (1975) contends that for environmental information to be useful for strategic planning it must meet two criteria; be adequate to estimate the effect upon the organization, and secondly provide sufficient advance notice for the firm to prepare a strategic response. The frequency and breadth of environmental scanning are positively related to organizational performance (Stahl et al., 1992).

Lansley (1987) identifies three types of environmental change that firms in the construction industry must detect and respond to – operational, strategic, and competitive. Operational change occurs in a stable environment and does not fundamentally alter the firm's underlying relationship with its environment. Typically it is easily recognized and handled through minor adjustment in operational policy and procedures. Strategic change is often precipitated by sudden and unexpected events in the external environment. The environmental change is unfamiliar and discontinuous requiring the firm to respond quickly by fundamentally altering its relationship with the environment. Competitive change, or transformational change (Male and Stocks, 1991), is a combination of both operational and strategic change. It constitutes a long-term, and often subtle, shift in the basic structure and relationships within the industry. Competitive change is incremental, but substantial. Drucker purports that "the truly important events on the outside are not trends. They are changes in trends" (1967:17). A firm's ability to detect, and effectively react to these discontinuities determines its ultimate success or failure in the marketplace.

The accuracy of a firm's assessment of environmental data is related to the degree of uncertainty and the rate of change of its environment (Burns and Kaplan, 1987). Detection of environmental change is more difficult as the rate, or discontinuity, of change increases. An additional

complication concerning environmental assessment is the distinction between the actual and perceived environmental conditions (Male and Stocks, 1991; Ansoff et al., 1990). The sieve that management superimposes on the available environmental data is tempered by the management's experience and judgment which often makes it difficult for the organization to detect *actual* environmental threats and opportunities (Kaplan et al., 1996; Junnonen, 1998). In addition, contracting organizations are often resistant to change and not receptive to learning from, or proactively adapting to, their operating environment (Kululanga et. al., 1999; Chinowsky, 2000).

Implementation, Evaluation and Control

"The greatest wisdom not applied to action and behavior is meaningless data" (Drucker, 1967:5). To enable effective implementation, a firm's strategy must dominate the design of its organizational structure and operating approach (Andrews, 1971). An organization's operating policies, functional strategies, and annual objectives need to support its strategic intent. A firm's strategic plan must be incorporated into organizational programs, resource deployments, and budgetary framework. It must be manifested in the operating philosophy of the organization through its tactical strategy and functional activities (Langford and Male, 1991). Grundy's strategy hierarchy for contracting entities depicts organizational strategy as the underpinning for firm policy, programs, operational focus, and ultimately project selection and production approach (1998). He submits that strategy implementation is ultimately achieved when project selection and day-to-day project management actions support a firm's strategic objectives. "Strategic programs and projects are the vehicles through which an organization's strategy is operationalized" (King, 1985:3) and management must create a 'strategy-focused' organization (Kaplan and Norton, 2001)

Reid (1989) conducted a longitudinal study utilizing structured interviews with 94 CEO's and 30 focus groups from the service and manufacturing industries primarily from Scotland. Based on the results from this study, he concluded that strategic planning was a sterile and self-contained process in most organizations. Reid found that the process was often oriented toward just the production of plan documents that were infrequently incorporated into management's activities. He noted that the planning process often failed to facilitate any meaningful change or guiding direction for the firm. He concluded, "the benefits of strategic planning are often nullified unless the process can be totally integrated with the organizational way of life. Continuity and inseparability with the execution process are critical factors" (1989:566). Chinowsky's (2000) investigation of US engineering and construction firms found similar results. He noted most all organizations had a strategic plan, but few translated them into strategic operational tasks for departmental, functional, and project focus.

A firm's strategy must be "institutionalized – permeate the very day-to-day life of the company – if it is to be effectively implemented" (Pearce et al., 1985:71). To effectively achieve this desired organizational state, performance targets for each and every manager must be coordinated with, and provide support for, the firm's strategic objectives (Thompson and Strickland, 2001; Drucker, 1954; Higgins, 1996). Evaluation and control of a firm's progress toward its strategic objectives must be a dynamic and continuous process in which management at every level is actively involved (Pearce et al., 1985; Albrecht, 1992). Feedback is central to performance assessment and organizational learning (Skitmore, 1989). It is an important management tool to assess the strategic alignment of organizational members and its coalitions, determine the clarity of strategy communication, and evaluate the strategic performance of the firm (Lingle and Schiemann, 1996).

Effective strategy implementation requires assessment and management of variables beyond firm structure, policy, and operational performance. It must include consideration of organizational dynamics such as culture, motivation, and politics (Stahl, 1992). Change can be threatening to an organization's existing culture and power coalitions and implementation success is often predicated upon management of these variables (Ansoff, 1990). "The support and commitment of key decision makers is vital if strategic planning and change are to succeed" (Bryson, 1995:47).

4.3.2 Planning Participation

Effective comprehensive planning requires the leadership, support, and commitment of the organizational leadership (Steiner, 1969; Bishop, 2001). Senior management must have a clear sense of the strategic direction for the firm and be able to effectively communicate that to all levels of the organization (Albrecht, 1994; Steiner, 1975, 1979). They must demonstrate their depth of commitment through active involvement in plan development and implementation. Leadership must generate participation, enthusiasm, and commitment for strategic planning and implementation throughout the organization (Harris, 1999; Kukalis, 1989; Hambrick, 1981).

"Corporate strategy, regardless of how elegantly conceived, how comprehensive its scope, or how forward-looking its thrust, does not provide competitive advantage until it is communicated, understood, valued, and acted upon by a variety of key corporate stakeholders" (Higgins, 1996:33). There is a direct relationship between participation and strategic planning effectiveness (Dyson, 1982; Bishop, 2001) and the key to successful development and implementation of a firm's strategic plan is predicated upon the early involvement of functional, departmental, and project management (McKenzie, 1999; Hinterhuber et al., 1992). Strategic planning is all about the people – the organization (Bishop, 2001). When John Browne, CEO of British Petroleum, was asked to define a distinctive organization he noted "its people are highly motivated, understand

exactly what they have to do to help create value, can see the results of their actions, and have a sense of ownership" (Prokesch, 1997:154).

4.4 SUMMARY

Strategic planning, as a business concept, has been in use since the mid 1900's. It has evolved from primarily an internally focused exercise based on extrapolated data (long range planning) to one that examines the firm's internal resources and capabilities relative to a changing external environment (strategic planning).

The strategic planning process has three primary elements – establishing objectives, assessing the environment, and implementation. Establishing a firm's objectives includes identifying long-range goals such as vision and mission as well as tactical or short-term objectives necessary to achieve the organization's strategic intent. Environmental issues focus on internal strengths and weaknesses in relation to the threats and opportunities of the operating environment. Implementation is a process of "institutionalizing" the strategic intent and establishing the evaluation and control mechanisms.

Strategic planning is seen as a dynamic process that must be supported, and 'led', by the chief executive officer of the firm. However, it is viewed to be more effective when plan development includes 'line management' participation. Strategic planning requires a commitment of organizational resources at all levels of the organization.

Practitioners and scholars have investigated as to whether or not the investment of organizational resources to develop and implement strategic plans was a prudent business decision. They have sought to determine the benefits derived from strategic planning and more specifically answer the question, 'is there a relationship between strategic planning and organizational performance'? Chapter Five reviews the qualitative propositions concerning planning implications and the empirical evidence relative to the relationship between strategic planning and organizational performance.

CHAPTER FIVE:

STRATEGIC PLANNING AND PERFORMANCE

5.1. INTRODUCTION

The strategic planning process facilitates an examination of a firm's present and anticipated external environment and it's match with the organization's internal capabilities. The planning process encourages the identification and evaluation of strategic options and ultimate selection of the key strategies that will drive future performance of the firm (Jackson, 1999). It establishes organizational strategies that guide policy and the decision process at all levels of the firm (Hillebrandt and Cannon, 1990; McKenzie, 1999).

Peter Drucker purports that "strategic planning does not substitute facts for judgment, does not substitute science for the manager. It does not even lessen the importance and role of managerial ability, courage, experience, intuition, or even hunch - just as scientific biology and systematic medicine have not lessened the importance of these qualities in the individual physician. On the contrary, the systematic organization of the planning job and the supply of knowledge to it strengthen the manager's judgment, leadership, and vision" (1974:129).

The benefits of strategic planning purported by scholars and researchers can be divided into two general categories – qualitative and quantitative (Bryson, 1995). Qualitative benefits are those organizational qualities or attributes that are enhanced by the strategic planning process and perceived to contribute to organizational success even though they are often difficult to measure and correlate directly with firm performance. Quantitative benefits are the measurable benefits of strategic planning and are generally expressed in performance measures such as profitability, return on investment, sales, or other forms of objective financial criteria.

This chapter explores the planning benefits professed by prominent literary scholars on the subject of strategic planning and the empirical evidence provided through research examining the relationship between these qualitative and quantitative benefits of strategic planning and organizational performance.

5.2. STRATEGIC PLANNING – QUALITATIVE BENEFITS

Literary scholars and researchers submit that the primary benefits of strategic planning are that the process improves a firm's understanding of its operating environment (Wilson, 1994), promotes a critical and comprehensive evaluation of a firm's capabilities (Newcombe et al., 1990), and aids in the identification of the key drivers of organizational success (Jackson, 1999). Additionally the process promotes a clearer sense of the firm's strategic direction (Hambrick, 1981), enhances organizational commitment to its long-term objectives (Lorange, 1980), identifies and aligns values (Bishop, 2001), and encourages the integration of strategic objectives with firm policy, operational programs, and near-term actions by members at all levels of the organization (Bryson, 1995; McKenzie, 1999).

Some researches purport that qualitative measurements are superior to quantitative assessment of a firm's financial performance. Segars and Grover submit that "multiple, interrelated success dimensions which are themselves measured by multiple indicators are more likely to capture changes in performance than an all-encompassing scale item or set of financial measures." (1998:143).

5.2.1. Environmental Awareness

Steiner claims that the great value of strategic planning is that "...it helps a manager foresee new opportunities and then permits him to exercise his innovative skills in exploiting them. Conversely, looking ahead reveals threats. Being forewarned, managers are in a much better position to eliminate them or lessen their impact than if they appear unexpectedly. Foreknowledge is power" (1969:69). Comprehensive evaluation of an organization's strengths and weaknesses relative to the firm's present and anticipated operating environment enables management to more effectively allocate resources and guide the firm toward its desired objectives (Porter, 1980).

Lending support to Steiner's proposition is Ang and Chua's (1979) study of 113 Fortune 500 companies in the United States. Through this study they investigated management's perceptions of the benefits of strategic planning. They found that managers thought the planning process improved the organization's understanding of the firm's business environment. This in turn enhanced the organization's ability to generate and explore the firm's strategic alternatives resulting in a more efficient and better quality planning effort resulting in enhanced accuracy of the organization's forecast performance. Al-Bazza and Grinyer's (1980) study obtained similar results in their study of 48 companies in the UK. They concluded that the greatest benefit derived from strategic planning was an increased awareness of the organization's strengths and

weaknesses. This conclusion was further supported by the studies of Sayid-Rajab (1981) and Osman (1992).

Increased environmental awareness improves an organization's understanding of its changing operating environment, reduces its vulnerability to strategic surprises, enhances its flexibility of response (Wilson, 1994; Chinowsky, 2000) and provides the basis for organizational learning (Lorange, 1980, Lansley, 1987; Hamel, 2000).

5.2.2. Strategic Vision

Steiner purports that the systems approach exemplified by strategic planning "...does not deal with each separate element of the business alone, by itself, but rather permits the manager to see things as parts of a whole" (1969:66). Because of this approach, strategic planning encourages management to focus attention on the key strategic issues for long-term success of the organization (Jackson, 1999).

Steiner's proposition is supported by Wilson's (1994) survey of fifty corporations, in a range of industries from several countries, investigating the benefits of strategic planning. He found that the most highly rated benefit of strategic planning was a clearer sense of strategic vision for the firm resulting in a sharper focus toward what is strategically important for organizational success. Providing additional support for strategic planning's part in establishing a firm's strategic vision is a study conducted by Hambrick (1981) involving 195 executives from three different industries. He concluded that there is a clear and consistent decline in strategic awareness as you move downward in the organization and it cannot be assumed to exist, even at the highest levels in an organization, without a well-developed strategic planning process.

Quinn's (1980a) study of large firms involved in consumable goods, basic processes, advanced technology, and consumer durables concluded that strategic planning forced organizations to take an integrated look at the firm's overall objectives and commitments and also provided the framework and rationale to evaluate strategic alternatives. Strategic planning provides the basis for the common assumptions of management resulting in a unity of direction and purpose (Camillus, 1975). It provides a clear definition of the organization's competitive arena and a better understanding of the critical success factors (Rule, 1987; Jackson, 1999).

Hensey (1986) states that the greatest benefit of strategic planning is it encourages management to think creatively about a firm's future. It's seen as a "mind-expanding" exercise to help develop management's application of 'strategic thinking' toward day-to-day decisions and actions

(Camillus, 1975). Porter submits that this 'strategic thinking' is "the glue that holds together the many systems and initiatives within a company." (1987:21). Steiner et al. (1983) submit that "the highest desired end result of strategic planning is not a set of plans but the development of intellectual skills that can be and are continuously employed in the managerial process" (1983:15). Lending support to this assertion is a study involving two hundred of the largest contractors in South Africa. Pienaar submits that strategic management skills might be more important for organizational success than general management abilities (1988).

5.2.3. Organizational Understanding and Commitment

Freeman (1988) investigated what she termed the "non-financial consequences of formalized strategic planning". In her study of large insurance companies she examined the relationship between two strategic planning system characteristics, formality and management participation, and the non-financial benefits to the organization. These non-financial, or subjective measures included strategic capability, communication, coordination, managerial training, and organizational adaptability. She concluded that management commitment and participation, and not planning formality, was the dominant planning system element for obtaining positive organizational results.

Harju's (1981) study of 43 firms in Finland investigated the concepts of planning and organizational commitment and the relationship of these variables to the profitability of the firm. He found those firms exhibiting high levels of planning formality and positive planning attitudes significantly outperformed all other groups. In contrast, formal planners with poor attitudes toward strategic planning had significantly lower performance than that of informal planners with positive attitudes. His conclusion was that management's planning attitude and commitment have a greater impact on organizational performance than the formality of the firm's planning process.

A study of large publicly held firms by Ramanujam and Venkatraman (1987) supports this need for planning commitment to achieve the benefits derived from the process. Similarly, Huang's (1997) study of the effects that strategic planning had on Florida State managers found that participation in the strategic planning process improved the participants' understanding and increased individual commitment to organizational strategies. Similarly, Konchar and Sanvido's (1999) study of fourteen successful contractors found that a clear organizational understanding of purpose was key for firm success.

Quinn's (1980a) study of large firms highlighted the importance of planning participation and involvement to enhance the commitment of individuals within the organization. Other scholars

have purported that involving management at multiple levels of the organization improves strategy selection and employee comprehension (Lorange, 1980), enhances flexibility (Hensey, 1986), improves organizational learning (Kululanga et,al., 1999), heightens the willingness to change (Wilson, 1994), and expands strategic responsibility and commitment (Lorange, 1980).

5.2.4. Integration of Strategy

Steiner submits that a strategic plan "gives guidance to managers throughout a business in making decisions which are in line with the aims and strategies of upper management levels. This will prevent piecemeal decisions and provide a basis for testing value judgments" (1969:70). In Wilson's (1994) study he found that strategic planning and the resulting plan enhanced the integration of the company's strategic intent with daily operations and enabled a better balance between long-term and short-term goals. Similar benefits were identified in Sayid-Rajab's (1981) investigation of the strategic planning practices of a small sampling of construction companies in the UK. Two of the primary planning benefits identified in his study were an improved awareness of the long-term implications of operational decisions and an enhanced understanding of the firm's objectives. Since a strategic plan establishes a company's long-term objectives, it provides a basis for guiding operational decisions and a benchmark to assess performance (Steiner, 1969; Greenley, 1986).

Bryson (1995) purports that strategic planning promotes strategic thought and facilitates organizational communication, participation, and teamwork leading to enhanced coordination and improved operational decisions. It helps ensure that the policies, and actions, of functional departments are coordinated and directed toward a common set of goals (Porter, 1980). A strategic plan provides the foundation for a firm's annual business and marketing plans and the strategic guidance for project management decisions during production (McKenzie, 1999).

Management personnel surveyed in Al-Bazza and Grinyer's (1980) study of 48 companies in the UK support the assertions of Bryson, Porter, and McKenzie. The managers identified enhanced communication, increased effectiveness in the allocation of resources, and improved organizational coordination and control as strategic planning benefits. Similar results were obtained when Osman (1992) examined the relationship between organizational effectiveness and strategic planning for the pharmaceutical industry. In his study data was collected from the Chief Executive Officers (CEO) of 105 pharmaceutical companies in the United States. He found that the CEO's generally viewed strategic planning as contributing to improved organizational communication, coordination, and effectiveness.

5.2.5. Perception of Strategic Planning Benefits

The focus of Leontiades and Tezel's (1980) study of Fortune 1000 companies was to determine if a relationship existed between an organization's perception of the importance, and benefits, of strategic planning and the actual performance of the firm. They did not measure the firm's planning process, but rather management's perception of the impact that their strategic planning efforts had on the firm's performance. Based on a survey of the CEO and Chief Planning Officer they placed each firm into one of three categories – high, medium, or low levels of perceived importance and contribution of strategic planning to organizational success. These categories where then correlated with five objective measures of performance over an eight year period. They found no correlation between the perceived importance and benefits of strategic planning and the actual performance of the organization. Leontiades and Tezel's results were similar to the findings of Najjar's (1966) study of small manufacturing firms, and Guynes's (1969) study of large manufacturing firms, both of which were conducted approximately two decades earlier.

Leontiades and Tezel's study is limited to the extent that it does not account for the intervening variables such as industry effects and firm size that have been identified as having a significant influence on organizational performance (Rhyne, 1986). However, it does highlight an inherent dilemma of subjectively measuring the benefits of strategic planning. Even poor planners or organizations with poor results can view the strategic planning process as important and of benefit to the firm's performance (Rhyne, 1986).

5.2.6. Summary of Qualitative Benefits

The preceding research efforts purport that strategic planning can provide perceived benefits to an organization. These benefits can include the selection of the optimal organizational strategy (Segar and Grover, 1998), increased environmental awareness (Ang & Chua, 1979; Al-Bazzaq & Grinyer, 1980; Sayid-Rajab, 1981; Osman, 1992), improved strategic vision (Quinn, 1980a; Hensey, 1986), enhanced organizational commitment (Freeman, 1988; Harju, 1981; Huang, 1997), and the integration of organizational strategy (Wilson, 1994; Osman, 1992). The implication is that these strategic planning benefits lead to improved performance. However, as Leontiades and Tezel's 1980 study concludes, perceived benefits may not be indicative of a firm's actual performance.

5.3. STRATEGIC PLANNING – EMPIRCAL FINDINGS

Over the past three decades a number of empirical studies have investigated the relationship between strategic planning and organizational performance as evidenced by the listing as shown in Table 5.3.1.

These studies have typically categorized a firm's planning approach on the basis of planning formality (Thune & House, 1970), planning sophistication (Sapp & Seiler, 1981), planning comprehensiveness (Fredrickson, 1984), and/or planning structure (Bracker, Keats, & Pearson, 1988). Firms in these planning categories were then correlated with a variety of financial measurements including return on investment, profitability, stock price, earnings per share, income growth and/or sales growth.

5.3.1. Empirical Studies

Often cited as positive support for the strategic planning – performance relationship is an early study by Thune and House in 1970 and Herold's (1972) extension of their work (Pearce, 1987). Thune and House's study included thirty-four (34) companies from the drug, chemical, machinery, food, oil, and steel industries. These companies were classified based upon their level of planning formality into "matched pairs" of seventeen (17) planners and seventeen (17) non-planners. A comparison of sales, earnings per share, return on equity, return on assets, and stock price yielded mixed results. Planners in the drug, chemical, and machinery industries significantly outperformed non-planners while in the food, oil, and steel industries no relationship between planning and performance was evident.

In an effort to explain the disparity in the research results Thune and House noted two organizational variables – environment and size. Companies in the drug, chemical, and machinery industries operated in an unstable environment while those in the food, oil, and steel industries were in a mature and stable market. Additionally, the average size of the companies in the drug, chemical, and machinery industries was considerably smaller (143m-200m versus 425m-1760m) than the other grouping.

The conclusion reached by Thune and House was that the relationship between positive economic performance and formal planning was most strongly related among medium sized companies in rapidly changing environments. However, even in those industries exhibiting a positive relationship, the researchers acknowledged that early product monopoly positions might have biased performance indicators.

Table 5.3.1 Empirical Studies on the Planning - Performance Relationship

Investigators	Year	Period	Planning Categories	Industry(s)	Planning – Performance Relationship	Performance Measure(s)	Sample Size	Industry Effects	Size
Thune & House	1970	7 yr.	Planners vs. Non-planners	Drugs, Chemical, Machinery Food, Oil, Steel	Positive None	Sales, EPS, ROE, ROA, Stock Price	34 (17 pairs)	Yes (matched pairs)	Yes (matched pairs)
Ansoff et.al.	1970	22 yr.	Planners vs. Non-planners	Manufacturing – Acquisitions	Positive	21 Financial measures	62	No	No
Herold	1972	10 yr.	Formal vs. Informal	Drugs & Chemicals	Positive	PBT and R&D	10	Yes (matched pairs)	Yes (matched pairs)
Fulmer & Rue	1974	3 yr.	Planners vs. Non-planners	Durables Non-durables Service	Positive None Negative	Sales growth, net profit, ROA	271	Yes	No
Grinyer & Norburn	1974	5 yr.	Planners vs. Non-planners	Glass, oil, chemical, scientific, engineering, metals, building, leisure	None	ROA vs. Industry Ave.	21	Yes	No
Karger & Malik	1975	10 yr.	Formal vs. Non-planners	Chemicals, drugs, electronics, machinery	Mixed	21 Financial measures	38 (19 pairs)	Yes	Yes
Sheehan	1975	5 yr.	Planners vs. Non-planners	Various	Negative	5 growth measures	141	No	No
Kallman & Shapiro	1978	10 yr.	Five Classes of Planners	Trucking	None	Sales, PBT, %PBT, ROE, ROA	298	Yes	Yes
Burt	1978	3 yr.	Low, Medium, & High Levels of Planning	Retail	Positive	Profit growth, ROI, &% change in ROI	14	Yes	Yes
Wood & LaForge	1979	5 yr.	Comprehensive, Partial, and Non-planners	Banks	Mixed	Income Growth, ROE	41	Yes	Yes
Kudla	1980	15 yr.	Complete planners vs. Non-planners	Mining, food, chemicals, machinery, transportation, finance, retail	None	Risk adjusted Stock returns	129	No	No
Fredrickson	1980	5 yr.	Planning Comprehensiveness	Forestry Products	Negative	ROA, % increase in Sales	27	Yes	No

Table 5.3.1 Empirical Studies on the Planning - Performance Relationship (continued)

Investigators	Year	Period	Planning Categories	Industry(s)	Planning – Performance Relationship	Performance Measure(s)	Sample Size	Industry Effects	Size
Sapp & Seiler	1981	N/A	(4) No, Beginning, Intermediate, & Sophisticated	Banks	Mixed	ROE, Deposit growth, Capital to Risk	302	Yes	No
Robinson & Pearce	1983	3 yr.	Non-formal vs. Formal	Banks (small)	None	Margin, loan growth, ROA, ROE	50	Yes	Yes
Fredrickson & Mitchell	1984	5 yr.	Planning Comprehensiveness	Paint & Coating	Positive None	ROA Sales Growth	38	Yes	No
Welch	1984	5 yr.	Planner vs. Non-planners	14 different industries	Positive	P/E	49	Yes	No
Rhyne	1987	10 yr.	5 Levels of planning	Various	None	10 yr. Total return	89	Yes	No
Kramarczuk	1987	6 yr.	Non, tactical, partial, and full planners	Accounting & advertising	None	% Profit %Sales growth	114	Yes	No
Robinson, Pearce, & Robbins	1987	5 yr.	High, medium, and low planners	60 different industries	Positive	ROA, ROS, Sales growth	97	No	Yes
Pienaar	1988	N/A	Planning Formality Strategic Mgm't	45 Contractors	Positive	Various	45	Yes	No
Braker, Keats, & Pearson	1988	5 yr.	Unstructured, Structured-operational Structured - Strategic	Electronics	Positive	Rev. growth, income, PV, CEO comp.	73	Yes	Yes
Rubinstein	1996	5 yr.	Planning Formality	Various	Positive	Profitability & growth	77	No	No
Nerone	1997	Multiple	Planners vs Non-planners	Various	Positive	Financial failure	47	No	Yes
Papke-Shields	1997	NA	Planning characteristics	Various	Positive	Sales & earnings growth, ROI	202	No	Yes

Karger and Malik (1975) and Kudla (1980) conducted studies of firms in industries similar to those in Thune and House's (1970) study. Both of these studies also used a similar classification for planners and non-planners. The conclusions reached by Karger and Malik were mixed while no relationship was shown to exist between planning and performance as measured by common stock returns in the Kudla (1980) study. Explaining his results, Kudla noted that "other factors such as size, history, organizational structure, management style, technology, and market environment may influence performance more than does the planning process" (p17).

Ansoff, Avner, Brandenburg, Portner, and Radosevich (1970) studied the acquisition success of large U.S. firms over a twenty (20) year period. They evaluated 22 planners and 40 non-planners and based upon their evaluation of twenty-one (21) financial measures they concluded that on virtually all relevant financial criteria, planners significantly outperformed non-planners. However, in this study no attempt was made to match planners and non-planners with respect to size, which certainly impacts a firm's acquisition options (Pearce, 1987), or the changing environmental forces of each industry over the twenty-year period of the study. At best, the conclusions of this study are only relevant to acquisition planning and not appropriate to draw conclusions relative to a general planning – performance relationship (Rue, 1974).

Rue and Fulmer's (1974) study included 386 firms from three (3) different industry classifications – durables, non-durables, and services. Based upon data obtained from a self-administered questionnaire, each respondent was classified as a planner or non-planner predicated upon the formality of their strategic planning effort. These were then correlated with performance measures including sales growth, net margin, and return on company assets. The study concluded that a positive planning – performance relationship existed for firms in the durables industry, no relationship was present in the non-durables, and in the service industries non-planners outperformed planners on all measures of financial performance. Based upon these inconsistent results, the researchers concluded "such variables as timing, luck, and the immeasurable quality of overall managerial competence have a more direct relationship on a firm's performance success than the formality of its long term planning activity". (1974:7)

Three studies exclusively examined the banking industry – Wood and LaForge (1979), Sapp and Seiler (1981), and Robinson and Pearce (1983). Wood & LaForge's study of forty (40) large banks categorized a bank's strategic planning effort as comprehensive, partial, and non-planners. When correlated with financial performance they concluded that comprehensive planners outperformed non-planners, but found no statistical difference between comprehensive and partial planners. A significant limitation of this study is the sample size of the comparative groupings. The partial planning group had only six (6) firms & the non-planning group had only nine (9). In

addition, similar to Fulmer and Rue (1974), Wood and LaForge also noted the difficulty of isolating the planning – performance relationship. In their conclusions they advised that "it should not be inferred, however, that comprehensive planning is the only reason for the superior performance of the banks studied. Rather, it is more likely that the managers of these banks were more progressive in many of their management practices" (p526).

Sapp and Seiler's 1981 study of 302 banks with assets greater than ten (10) million had mixed results. They found linkage between planning and several measures of financial performance, but failed to establish a convincing relationship between the sophistication of a firm's planning effort and a comprehensive measure of financial performance - return on equity.

Robinson and Pearce's (1983) study focused on the relationship between planning formality and performance through evaluation of fifty (50) small banks in South Carolina, US. With their study they sought to overcome some of the methodological deficiencies of earlier studies which they identified specifically as small sample size, failure to control geographical variables, use of limited performance measurements, and unclear operational definitions or subjective measurement of planning formality. In contradiction to Wood and LaForge's study, they concluded that the formality of an organization's planning effort had no significant effect on performance.

Another single industry study is Kallman and Shapiro's (1978) study of 298 firms in the trucking industry. This research effort utilized five planning classifications ranging from non-planners to formal sophisticated planners. They found no relationship between a carrier's size, type, geographical location, or planning commitment and economic performance. Their explanation of these results was that the trucking industry is heavily regulated and therefore has less uncertainty and a lower need for long range strategic planning. They concluded that "the industry is really quite closed to environmental influences, and consequently management has a very small degree of freedom in the area of strategic decision making" (1978:34).

Burt (1978) studied fourteen (14) large, publicly traded retail firms in Australia and concluded that firms exhibiting "high quality planning" demonstrated high relative levels of performance while "moderate quality planners" exhibited moderate performance. However, Burt's study had mixed results when evaluating what he termed "low quality planners". Two of the five firms classified as such, actually had superior economic performance. This inconsistency, in addition to the study's small sample size, greatly limits the conclusions that can be drawn from this research effort (Pearce et al., 1987b).

Fredrickson (1980) used a case study approach to evaluate the planning – performance relationship in the forest products industry. With the input and advice of industry executives he developed "decision scenarios" that required strategic evaluation and decision(s) by management of the participating firms. Through these case studies he found a consistently negative relationship between the comprehensiveness of the strategic decision process and performance. Several years later Fredrickson and Mitchell (1984) used a similar methodology to evaluate the paint and coatings industry. In this study they concluded that a positive relationship existed between planning comprehensiveness and return on assets while no relationship was found to exist between planning and financial measure of sales growth. They concluded that planning comprehensiveness was associated with better performance in a stable environment and poorer performance in an unstable environment. However, as Pearce et al. (1987) point out, using case studies to measure a company's strategic response and the corresponding hypothesized performance may be very different than developing and executing an actual company strategy.

Grinyer and Norburn's (1974) study is one of the few that included firms from the building industry in its sample. They evaluated the strategic planning practices and performance versus industry means of twenty-one (21) UK companies from several industries including glass, oil, chemical, scientific instrument, engineering, metal working, building, and leisure. They categorized their sample into nineteen (19) planners and two (2) non-planners. The two non-planners did worse than the industry average, but thirteen (13) of the nineteen (19) planners also performed below industry averages. They concluded that there was no evidence that formal planning pays.

Piennar's (1988) study involved a population consisting of the 200 largest contractors in South Africa. Her sample included 45 usable respondents, the majority of which (25) had annual revenue less than 50 million. Pienaar found limited use of strategic planning and a low degree of formal strategic management in the industry. Even though the study data did not provide statistical support a hypothesized planning-performance relationship, she concluded that a positive relationship existed between the level of formal strategic management and financial performance. In addition to the absence of statistical support, any conclusion(s) reached by Pienaar are also severely limited because the study did not account for contracting method, organizational size, or contracting type. In addition, objective performance data was not obtained from any of the private firms involved in the study.

Welch (1984) examined one hundred twenty-three (123) publicly traded firms in fourteen (14) different industries. Similar to many of the other studies he grouped firms into planners and non-planners based upon data from a self-administered questionnaire completed by the participating

firms. He concluded that strategic planners exhibited higher price to earnings multiples than non-planners. However, a significant limitation of this effort is that only two (2) of the industries under study had more than one non-planner for comparative statistical analysis.

Similar to Welch (1980), Rhyne (1987) evaluated publicly traded companies. He examined the planning – performance relationship using a sample of sixty-six (66) Fortune 1000 firms from twenty-six (26) different industries. The attributes of his study included a firm's strategic objectives, planning formality, planning system complexity, and the information sources utilized in the planning effort. His classification of a firm's planning system as high, medium, or low was correlated with the company's total return to investors over a ten-year period versus industry medians. His findings provide limited support that planning system characteristics can influence performance. He found that the highest performers placed greater emphasis on an adaptive style of planning and placed a relatively high level of importance on integration of the planning objectives.

Kramarczuk (1987) conducted a study that focused on the planning – performance relationship in two service industries. Planning and financial data was collected from 114 firms in accounting or advertising through the use of self-administered questionnaires. Based on the information collected he categorized firms as non-planners, tactical planners, strategic partial planners, or full planners. These classifications where then analyzed in conjunction with financial performance measures provided by each company. The findings of his research were that no statistically significant relationship existed between firm's planning approach and its percentage of profit or percentage sales growth.

Ninety-seven (97) North Carolina, US manufacturing firms averaging $20 million in annual sales from 60 different industries were evaluated by Pearce et al. (1987a). This study also utilized a self-administered questionnaire to obtain the relevant data and classified each firm's level of planning sophistication as low, medium, or high. These classifications were then correlated with performance measures consisting of return on assets, return on sales, and sales growth. While this study concluded that firms with high-to-moderate planning sophistication had significantly higher overall performance, its conclusions are limited by the survey's subjective measurement of performance and the methodology of using data obtained from just one (1) survey question to classify the firms.

The objective of Bracker, Keats, and Pearson's 1988 study was to examine the relationship between strategic planning sophistication and financial performance of firms in a dynamic growth industry. For their sample they selected two hundred seventeen (217) firms from the electronics

industry that were privately held, more than five years old, and with less than 100 employees. Data on the firm's planning system and several financial performance measures were collected by a self-administered survey. One of their hypotheses, that the level of planning sophistication would be positively related to performance, was accepted.

Rubinstein investigated the strategic planning practices of seventy-seven (77) Costa Rican firms from various industries in his 1996 study. With his study Rubinstein correlated planning comprehensiveness, industry type, firm size, and environmental uncertainty with financial performance. He concluded that planning formality correlated positively with firm profitability and sales growth and that environmental uncertainty, industry type, and firm size influenced planning formality.

Nerone's (1997) research question was concerned with determining if the absence of strategic planning was associated with small business failure. His evaluation of thirty-nine profitable and eight (8) unprofitable firms in Naples, Florida concluded that a significant positive correlation existed between strategic planning and small business financial success. However, the study's non-probability sampling technique and arbitrary planning classification system limit the conclusions drawn.

Papke-Shields (1997) examined the relationship between planning system design, manufacturing context, and planning effectiveness. Her sample consisted of two hundred two (202) manufacturers listed in the *Harris Manufacturing Directory* with annual sales between fifty million and three billion dollars. Planning system characteristics defined and examined in this study included flow, formality, comprehensiveness, focus, intensity, horizon, participation, and involvement. Planning effectiveness was evaluated according to three criteria – objective fulfillment, capability improvement, and strategic alignment. Papke-Shields hypothesized a positive relationship between planning system characteristics and organizational success that was modified by the manufacturing context. The conclusion reached was that a rational adaptive planning system improved performance even more if the firm's products or processes were more dynamic or complex. In addition, greater planning participation enhanced success in a dynamic environment.

While the methodology utilized by Papke-Shields (1997) to classify planning system characteristics is markedly improved over many of the earlier studies, the performance measures were of a subjective nature. Actual financial data was not collected; only management's perception of the firm's performance relative to its major competitors was utilized. This study

may also suffer from the conclusions reached by Leontiades and Tezel's (1980) study - perceived benefits may not be indicative of a firm's actual performance.

5.3.2. Methodology Limitations

For three decades managers have been utilizing strategic planning based on the premise that it would improve firm performance, but the overall results of the studies investigating the planning-performance relationship provide only limited support for that premise. Of the twenty-four (24) studies listed in Table 5.3.1, ten (10) concluded that there was a positive relationship between strategic planning and organizational performance, six (6) had mixed results, six (6) found no relationship, and two (2) studies found a negative relationship between strategic planning and firm performance. An evaluation of this body of work reveals that the conclusions vary, and combined, these studies provide for only a 'tenuous linkage' between strategic planning and organizational financial performance (Pearce et al., 1987b).

In an attempt to explain the inconsistency of the empirical data on the planning-performance relationship Greenley (1986) evaluated the methodological rigor of the earlier studies conducted in the manufacturing sector. Utilizing Terpstra's (1981) criteria of sampling strategy, sample size, control group usage, measurement strategy, and significant levels of statistical testing, Greenley concluded that none of the studies could be considered particularly rigorous in their methodology. In addition to flaws in sampling and measurement techniques, he found major weaknesses in the identification and control of the intervening and modifying variables affecting the relationship between planning and performance. His conclusion was similar to Kudla's (1980) evaluation noting the "lack of control of extraneous, independent variables that could have influenced economic performance" (17).

Shrader, Taylor, & Dalton (1984) submit that the planning-performance relationship is moderated, or decoupled, by such factors as the "characteristics of the environment, stage of organization life cycle, managerial skill, time, quality of planning effort, comprehensiveness of the planning effort, and organization structure and technology" (p155). Similarly, Kudla (1980) purports that "other factors such as size, history, organizational structure, management style, technology, and market environment may influence performance more than does the planning process" (p17). Three of these factors; company size, environmental context, and measurement of the planning effort; are considered key variables when evaluating the relationship between planning and organizational performance (Thune et al., 1970; Kudla, 1980; Rhyne, 1987; Papke-Shields, 1997).

Company Size

One of the earliest research efforts, Thune and House (1970), recognized organizational size as a critical contingency variable in planning-performance research and theory. Support for this assertion is provided by comparing the results of Wood and LaForge (1979) and Sapp and Seiler's (1981) with the work of Robinson and Pearce (1983). In their research of the banking industry, Wood and LaForge (1979) and Sapp and Seiler (1981), found limited support for the planning-performance relationship in large banks, while Robinson and Pearce's 1983 study found no relationship between planning and performance in small banks. This influence, or modifying effect, that organizational size has on strategic planning and firm performance is noted by a number of other authors and researchers including, Bourgeois, 1980; Hofer et al., 1975; and Lindsay and Rue, 1980.

Recognizing the influence of size on the financial performance of firms in the construction industry, industry associations and reporting agencies categorize the financial results for construction firms by size (Construction Financial Management Association, Robert Morris and Associates). In their yearly publications of the aggregate performance of firms in the construction industry they consistently report that as company size increases, financial performance, as measured by percent profitability of revenue, decreases.

In spite of wide-spread support for the moderating effect of company size on firm performance, only twelve (12) of the twenty-three (23) studies listed in Table 5.3.1 adopted research methodology to control, or account for, the influence that it has on firm performance and in turn, the moderating effect organizational size has on the planning-performance relationship.

Environmental Context

Kudla (1980) noted that the main weakness of several studies (Thune and House 1970; Herold, 1972; Rue, 1973; Karger and Malik, 1975; Grinyer and Norburn, 1975) was the lack of control, or consideration, of the environmental conditions affecting the firms under study. Studies as early as Thune and House's (1970) provided differing levels of support for the planning-performance relationship based upon the operating environment of each industry. When explaining the mixed results of their study they noted the impact industry variances such as governmental influence or regulation and the competitiveness of the marketplace have on firm performance.

Beard and Dess's (1981) study of forty (40) firms in a single industry concluded that the "industry" in which a firm is operating is a key determinate for the level of profitability of an organization. They found that the industry setting "...was a statistically significant predictor of

firm profitability and that it explained consistently more variance than any of {the other} business level strategy variables" under study (p687).

Fredrickson and Mitchell concluded, based on the results of their 1984 study of the paint and coatings industries, that greater planning comprehensiveness was associated with improved performance in a stable environment while poorer performance would result in an unstable environment. They, and others (Mintzberg, 1994; Grinyer and Norburn, 1974), argue that a rational strategic planning system is not appropriate in a dynamic or turbulent industry environment. In contrast, the work of Ansoff et. al. (1970), Armstrong (1982), Kukalis (1988, 1989) and Papke-Shields (1997), cite an increased need for a more rational, participative, and comprehensive approach to coordinate strategy development and deployment in a rapidly changing or complex industrial setting.

Regardless of the position taken by each literary scholar, or the conclusions reached through their research efforts, a central theme is the impact of industry type and marketplace environment on strategic planning, firm performance, and any relationship between these two variables. In spite of this extensive support for the influence of industry type and a firm's operating environment, seven (7) of the studies listed in Table 5.3.1 did not control, or account for, the moderating or intervening effect that a firm's industrial setting has on organizational performance.

Table 5.3.2
Empirical Studies Accounting for Size and Industry

Investigators	Year	Industry(s)	Planning – Performance Relationship	Sample Size	Industry Effects	Size
Thune & House	1970	Drugs, Chemical, Machinery Food, Oil, Steel	Positive None	34 (17 pairs)	Yes	Yes
Herold	1972	Drugs & Chemicals	Positive	10	Yes	Yes
Fulmer & Rue	1974	Durables, Non-durables & Service	Mixed	271	Yes	Yes
Karger & Malik	1975	Chemicals, drugs, electronics, machinery	Mixed	38 (19 pairs)	Yes	Yes
Kallman & Shapiro	1978	Trucking	None	298	Yes	Yes
Burt	1978	Retail	Positive	14	Yes	Yes
Wood & LaForge	1979	Banks	Mixed	41	Yes	Yes
Robinson & Pearce	1983	Banks (small)	None	50	Yes	Yes
Bracker, Keats, & Pearson	1988	Electronics	Positive	73	Yes	Yes

When considering two of the key variables that influence the planning-performance relationship, company size and industry environment, over half of the studies listed in Table 5.3.1 neglect to

address or account for their impact. Even those studies that do account for these variables, as listed in Table 5.3.2, cite conflicting results supporting Pearce, Freeman, & Robinson's (1987b) assertion of a tenuous planning-performance linkage.

Measurement of Strategic Planning

All of the previously cited studies classify an organization's planning effort based upon the formality, comprehensiveness, sophistication, and/or structure of a company's strategic planning effort. The approach utilized varies from Papke-Shield's (1997) extensive and detailed method analyzing multiple variables to classify a firm's planning characteristics to Robinson, Pearce, & Robbins' (1987b) use of just one question on a self-administered questionnaire to place their sample firms in the planning categories used in their study. Leontiades and Tezel (1980) argued that the simplistic and often subjective methods used in earlier research to define planning formality and the subsequent classification of firms as a primary reason for the mixed results on the planning-performance relationship.

5.4. SUMMARY

Past studies conducted to determine the relationship, if any, between strategic planning and long-term financial performance have provided inconsistent results. Some researchers (Thune and House, 1970, Ansoff et. al, 1970; Fulmer and Rue, 1974; Welch, 1984; Papke-Shields, 1997) purport that strategic planning enhances firm performance while others, (Fulmer and Rue, 1974; Karger and Malik, 1975; Wood and LaForge, 1979; Sapp and Seiler, 1981; Fredrickson and Mitchell, 1984) claim their work provides partial support of a positive relationship. At the other end of the spectrum are studies concluding that no relationship exists between planning and performance (Grinyer and Norburn, 1974; Kallman and Shapiro, 1978; Kudla, 1980; Robinson and Pearce, 1983; Rhyne, 1987), or that there is a negative impact on organizational performance (Sheehan, 1975; Fredrickson, 1980).

The difficulty of isolating the effect that strategic planning has on organizational performance is exemplified by Thune and House (1970). Even in those industries where a positive relationship between planning and performance was found, they note "it would probably be naive to conclude that formal planning is the sole cause of the successful performance of the firms studied. It is more likely that these companies are using other analytically oriented and modern management practices in other decision areas as well" (p87). Similar to the opinion of other researchers (Wood and LaForge, 1979; Rue and Fulmer, 1974; Kudla, 1980; Rhyne, 1987) Thune and House "speculated that firms engaged in formal planning also use more sophisticated methods for organization design and analysis; managerial selection, development, and compensation; and

administrative control. Thus, it is most likely that formal planning is a characteristic of a well-managed firm rather than the single cause of successful economic performance" (p87).

However, Welch notes "...this lack of consensus is quite surprising because there are many reasons to expect that strategic planning would have a long-term financial payoff. Strategic planning improves a company's chances of doing the right thing at the right time for the most part because it has a better understanding of its business and its environment, has available more timely and accurate information and forecasts, is continually identifying and evaluating its alternatives, uses better techniques of analysis, and reacts more quickly to a changing environment" (1984:144). However, considering the complexity of the planning-performance relationship and methodology deficiencies inherent in many of the studies, the inconsistent results of past efforts are not surprising (Pearce, Freeman, & Robinson, 1987).

Construction firms are often considered 'short sighted' and internally focused in their business and project management approach (Male and Stocks, 1991: Hillebrandt and Cannon, 1990). Industry data from individual contractors supports this short-term strategic thrust (CFMA, 1997) and the competitive nature of the industry reinforces a tactical focus on operational performance. Many scholars and researchers view the industry's propensity for this tactical focus as a deterrent to addressing the long-term issues facing contractors and the construction industry in general (Dorsey, 1997; FMI, 2000; Male and Stocks, 1991). However, if contractors had evidence that planning and acting 'long-term' (strategic planning) improved financial performance the focus may change in that: 1) long-range (strategic) vision would be encouraged, 2) near-term actions would be influenced and guided by strategic interests, and 3) strategic issues facing each firm, and the industry in general, would more likely be addressed.

While conclusive evidence concerning the planning-performance relationship may be lacking from these studies, several of the conclusions drawn can provide insight into the relationship that may exist in a highly competitive, complex, and dynamic environment - environmental conditions characteristic of the construction industry. Support is provided for a positive relationship between strategic planning and performance in industries delivering a complex product or service (Papke-Shields, 1997; Kukalis, 1989) in an environment characterized as uncertain (Lindsay and Rue, 1980), dynamic (Papke-Shields, 1997; Thune and House, 1970; Wilson, 1994), competitive (Dess, 1987), and highly fragmented (Galbraith and Schendel, 1983).

However, the 'knowledge base' provided by previous research efforts is insufficient to draw well-founded support of a planning-performance relationship for firms in the construction industry. Past research efforts: 1) provide only 'tentative' support for a planning-performance relationship

(often because of the lack of methodological rigor), 2) do not exclusively examine the construction industry, and 3) typically examine the concept of strategic planning in the context of 'what' (planning steps and/or documentation) and pursue limited investigation of 'how' strategic planning (the planning process) is accomplished.

Therefore the objective of this research effort is to address that knowledge gap by: 1) determining to what extent, if any, a planning-performance relationship exists, and 2) developing a strategic planning 'best practices' listing – identifying the planning approach that is most effective.

The initial steps in that process require conceptualization of strategic planning and the development of the research hypotheses – the objectives of the next chapter. In Chapter Six, the constructs utilized to characterize strategic planning for this study are identified, evaluated, and defined to facilitate a reliable measurement of an organization's strategic planning effort and approach. In addition, the research hypotheses utilized to test the planning-performance relationship are developed.

CHAPTER SIX:

RESEARCH CONSTRUCTS AND HYPOTHESES

6.1 INTRODUCTION

Pearce, Freeman and Robinson's (1987) examination of planning-performance studies found results similar to those presented in Chapter Five. Their review of past studies concluded that the relationship between strategic planning and firm performance was at best 'tenuous'. Peace et. al. (1987) identified a number of methodological deficiencies that they suggested could have weakened or disguised a planning-performance relationship. The most serious of which was an inadequate identification and/or classification of the constructs that define both strategic planning and performance.

To avert this methodological deficiency, this chapter will review the constructs utilized to define 'strategic planning' and 'performance' for this study. The hypothesized relationship between each of the strategic planning constructs and firm performance will also be reviewed. In the following sections of this chapter the hypothesized relationship is presented in a manner consistent with previous research findings and studies on this subject. However, relationships will typically be statistically tested assuming a hypothesized mean difference of zero. Therefore, the hypotheses presented in the following sections are typically the alternate 'test' hypotheses, rather than the null hypotheses.

6.2 PERFORMANCE CONSTRUCTS

Firm performance has been defined and evaluated in past studies on both a quantitative and qualitative level. Qualitative measures have often been based upon perceived benefits such as those found in a study of fifty corporations by Wheelen (1998). He identified planning benefits to include a clearer sense of strategic vision, sharper focus on what is strategically important, and improved understanding of the operating environment. Similar to Wheelen, King (1988) purports that many of the planning benefits are intangible. However, they can provide valid assessment of the planning effort and should be measured to enable a comprehensive determination of planning effectiveness. Likewise, King (1988), Papke-Shields (1997), and Segars and Grover (1998) purport that the concept of planning system success is a complex set of interrelated constructs that cannot be measured by financial performance alone.

Similar to Wheelen (1998), Segar and Grover (1998), and Papke-Shields (1997), this study will incorporate qualitative measurements of *planning effectiveness*. Measurements of planning effectiveness include 1) the 'contribution' that strategic planning provides the organization through improved situation analysis and understanding, and 2) the 'improvement' in organizational capabilities resulting from an increased understanding and knowledge facilitated by the planning effort. Evaluating the 'contribution' of strategic planning centers on an assessment of planning's impact on the generation of new and novel strategic initiatives, the firm's strategic vision, decision-making, and implementation of strategic initiatives. Measuring strategic planning's impact on the improvement of 'organizational capabilities' focuses on the influence that planning has on the firm's awareness and knowledge of environmental conditions and its influence on the firm's responsiveness to its operating conditions (Segar and Grover, 1998; Papke-Shields, 1997). The hypothesized relationship is:

H1: *There is a positive relationship between planning effectiveness and organizational performance.*

While qualitative issues may be of great concern to an organization, quantitative performance measurements are also common in research and often exclusively used in business (Ramsay, 1989). Many of the studies cited in the previous chapter measured organizational performance on a quantitative level. Bogue et. al. emphasizes the importance of financial indicators when he notes that "the focal point of strategy is to enhance economic value for the firm..." (1986:7). Leading support to Bogue's assertion, Ramsay points out that the primary purpose of a contractor's organizational strategy is to achieve competitive advantage leading to improved financial performance (1989). Cook (1988) submits that construction contractors are in business to realize a profit and maintain steady growth. Lending support to the importance of sales growth, Pearce and Robinson (1985) submit that while profitability is the main goal of business, a firm's profitability is often inextricably tied to sales growth (Pearce and Robinson, 1985).

In this study, quantitative financial indicators will also be used to measure firm performance. The financial indicators selected will be 'return on tangible investment' (ROI) and the 'percentage of annual volume growth'. ROI has been selected because of its comprehensive, risk adjusted, measurement of profitability (Jackson, 1999b). The selection of 'annual *volume* growth', as opposed to *sales* growth, is warranted because volume is a more representative indicator of firm 'activity' (Hillebrandt and Cannon, 1990). The hypothesized relationships are:

H2a: *Large general contractors that practice strategic planning have performance, as measured by revenue growth, superior to that of large general contractors that do not practice strategic planning.*

H2b: *Large general contractors that practice strategic planning have performance, as measured by return on investment, superior to that of large general contractors that do not practice strategic planning.*

6.3 STRATEGIC PLANNING CONSTRUCTS

The objective of this research effort is to evaluate the relationship between strategic planning and performance for general contractors. To properly evaluate the existence of any relationship, the constructs utilized to characterize and measure the strategic planning process within an organization must be identified and defined. Previous researchers and scholars have used a number of constructs defining the strategic planning concept. Many of the earlier studies focused on the formality and structure of the planning process (Thune & House, 1970; Ansoff et. al., 1970; Karger & Malik, 1975) and later studies addressed the comprehensiveness of the planning process (Wood & Laforge, 1979; Fredrickson & Mitchell, 1985). Strategic planning was primary conceptualized as 'what' was being done during the planning effort, or the 'planning steps' being accomplished. Little, if any, focus was placed on 'how' strategic planning was performed – the planning process.

Recent studies have investigated the planning 'process' and also have placed additional emphasis on planning participation and integration or implementation (Segars, 1994, Papke-Shields, 1997; Chinowsky, 2000). Building upon the work of Segars (1994), Papke-Shields (1997), Segar and Grover (1998), and Fredrickson and Mitchell (1984) the constructs used to characterize strategic planning for this study include planning *flow, formality, comprehensiveness, participation, intensity, and integration.* A discussion of each of these constructs is presented in the following sections.

6.3.1 Planning Flow

Planning flow defines the source(s) of strategic initiatives for the organization. It identifies what level of management or operational personnel within the firm have the responsibility and authority for both plan development and implementation (Papke-Shields, 1997; Karger & Malik, 1975). Planning flow, or the direction of these strategic initiatives, is often referred to as 'Top-down' or 'Bottom-up' planning. 'Top-down' planning can be characterized as centralized

planning with senior management primarily responsible for strategy selection and plan development. With this type of planning operational personnel and 'line manager' responsible is limited to plan implementation.

Conversely, 'Bottom-up' planning can be characterized as decentralized. Planning flow originates at the lower levels of the organization. Operational personnel and functional managers are primarily responsible for strategy selection, plan development, and implementation. Senior management, in more of a support and advisory role, reviews and approves strategic initiatives and allocates resources to support implementation (Steiner, 1979; Segar, 1994; Wheelen, 1998).

Steiner (1979) submits that when senior management develops strategy and establishes organizational goals the outcome is superior. He purports that 'Top-Down' planning also enhances the effectiveness and consistency of the communication of strategic direction. Conversely, Prokesch (1997) submits that 'Bottom-up' planning more fully leverages the learning power of an organization. Additionally, Lindsay and Rue (1980) purport that decentralized planning is more appropriate for a dynamic and complex operating environment. This planning approach allows an organization to react quicker to changing opportunities and threats.

The operating environment for contractors is complex and dynamic (Langford & Male, 1991). Even though the US construction industry is a mature, low growth industry with a comparatively well-known and established technology, the industry can be characterized as unstable with an 'expanding level of turbulence' (Junnonen, 1998). Under these environmental conditions, organizations that utilize a more open, "bottom-up', planning process should be able to react quicker and more effectively to the changing marketplace. Thus the hypothesized relationships between planning flow and performance are:

H3a: *There is a positive relationship between planning flow (bottom-up) and financial performance as measured by return-on-investment.*

H3b: *There is a positive relationship between planning flow (bottom-up) and performance as measured by percentage growth in annual revenue.*

6.3.2 Formality

Planning formality is a construct that has been measured to varying degrees in all the past studies evaluating the planning-performance relationship. Formality is a measurement of the structure and documentation of the planning and implementation process (Papke-Shields, 1997; Grinyer et. al.,

1986). Reid notes that genuine commitment to strategic initiatives is only possible if the plan is documented (1989). Formality is also related to the degree of structure for decision-making, responsibility, and authority of the planning participants (Pearce and Robinson, 1985).

Planning formality is often associated with the size and age of an organization, with larger and more mature firms generally having increased formality in the planning process (Welch, 1984). Formal planning enhances the development of broad strategies and stretches the planning horizon. It promotes communication, coordination, and consistency of action (Camillus, 1975; Segar, 1994). Planning formality facilitates a better understanding of the organization, its business, and its operating environment (Welch, 1984). In a complex and competitive environment a structured planning process encourages the collection and evaluation of relevant data (Armstrong, 1982; Grinyer et. al., 1986).

Since this research is evaluating the planning-performance relationship of larger general contractors operating in a complex and competitive marketplace, it is hypothesized that planning formality will have a favorable impact on performance. The precise hypotheses to be tested are:

H4a: *There is a positive relationship between planning formality and financial performance as measured by return-on-investment.*

H4b: *There is a positive relationship between planning formality and performance as measured by percentage growth in annual revenue.*

6.3.3 Comprehensiveness

Strategy has been conceptualized as an 'aggregate of decisions' concerning the strategic options available to the organization (Fredrickson, 1980; Bryson, 1995). The 'comprehensiveness' of this process has been the focus of evaluation in a number of past research efforts. Many of these studies have attempted to evaluate a firm's strategy formulation and implementation process solely on the basis of a single construct – 'planning comprehensiveness' (Sap & Seiler, 1981; Welch, 1984; Rhyne, 1987; Bracker, Keats & Pearson, 1988; Karger & Malik, 1975; Wood & LaForge, 1979; Kudla, 1980). In most cases these studies utilized Fredrickson' and Mitchell's (1984) description of comprehensiveness that contained both analytical and integrative aspects. Planning comprehensiveness was characterized as the degree of situation diagnosis, alternate generation, alternate evaluation, and decision integration (Fredrickson, 1980).

Steiner (1979) purports that comprehensiveness is more highly associated with, and an important component of, rational planning. Pearce and Robinson submit that "the search for alternative

strategies is both incremental and creative in that strategist begin by considering alternatives they are familiar with and think will work. These are usually incremental alterations of past strategies" (1985:24). With either approach, incremental or rational, comprehensiveness enhances the planning process and promotes organizational learning and alternate evaluation, leading to superior strategic decisions (Steiner, 1979; Fredrickson & Mitchell, 1984; Papke, 1997). Hamel and Prahalad (1994) point out the need to enlarge a firm's "opportunity horizon". They submit that industry laggards often follow the strategic path of least resistance, noting that companies fail more often because of their inability to escape the past rather than their lack of ability to invent the future. However, the comprehensiveness of the planning effort must be balanced with the need for flexibility and responsiveness in dynamic or unstable environments (Fredrickson, 1980).

The need for a comprehensive evaluation of strategic alternatives is often associated with industries and operating environments requiring capital-intensive investments for 'plant and equipment' because of the long 'payout' period (Porter, 1985). Since the construction industry, and in particular general contracting, could not typically be characterized as capital intensive, an argument could be made that comprehensive planning is not important. However, most contracting entities operate in 'niche' markets requiring a high degree of organizational knowledge and expertise that often takes years to develop - operating conditions that encourage long-term comprehensive planning (Langford & Male, 1991; Hillebrandt & Cannon, 1990).

Considering the environmental context and complexity of the product/service delivery process for the construction industry, the hypothesized relationships between planning comprehensiveness and performance are:

H5a: *There is a positive relationship between planning comprehensiveness and financial performance as measured by return-on-investment.*

H5b: *There is a positive relationship between planning comprehensiveness and performance as measured by percentage growth in annual revenue.*

6.3.4 Participation

The construct of strategic planning participation embodies both 'who is participating' and to 'what degree'. It addresses the number and diversity of participants, the degree of their involvement, and the quality of coordination and communication amongst the parties (Dyson & Foster, 1982; Papke-Shields, 1997). Bishop (2001) purports that the primary focus of strategic planning should be organizational participation. Hamel and Prahalad submit that the entire

organization, not just a few of its leaders, must have intimate knowledge of its strategic objectives to facilitate the 'creation' of the firm's future (1994). They suggest that this strategic knowledge provides the employees emotional and intellectual energy for the 'journey' toward the organization's objectives. Steiner (1979) purports that increased planning participation improves the identification, evaluation, and ultimate selection of strategic initiatives. He also suggests that it enhances understanding of, and commitment to, plan objectives. Participation helps to develop a 'shared intent' (Stacey, 1993) and facilitates 'ownership' of the plan (Faulkner et. al., 1995; Grundy, 1995). It helps foster organizational learning (Hamel, 2000) and enhances plan implementation success. Ackoff (1981) even claims that participation in the 'planning process' is more important than the plan itself.

Past studies have provided support for a positive relationship between planning participation and organizational performance (Krager and Malik, 1975; Hrebiniak and Snow, 1982; Dess, 1987; Papke-Shields, 1997) and related variables such as performance and consensus on firm objectives (Dess, 1987) or organizational strengths and weaknesses (Hrebiniak and Snow, 1982).

Therefore, the hypothesized relationships between planning participation and the performance of large general contractors are:

H6a: *There is a positive relationship between planning participation and financial performance as measured by return-on-investment.*

H6b: *There is a positive relationship between planning participation and performance as measured by percentage growth in annual revenue.*

6.3.5 Intensity

Planning intensity embodies the concepts of planning frequency, planning horizon, resource commitments to the planning effort, and management commitment to the strategy development and implementation process (Segar, 1994; Papke-Shields, 1997; Faulkner et. al., 1995). A high intensity planning effort is one with frequent and lengthy face-to-face contact between the participants. Unlike tactical planning, it focuses on long-term strategic issues facing the organization. It is underpinned by a philosophy that strategy development and deployment is a continuous process (Faulkner et. a., 1995) A high intensity approach to planning represents a substantial investment of personnel resources and requires a high degree of organizational and management commitment. It is recognition that "the process of strategy development and implementation are both continuous and symbiotic" (Hamermesh, 1986:41).

A higher intensity planning effort would be characterized by a high level of interaction, frequent evaluation of strategic issues, and enhanced generation and evaluation of strategic alternatives. Steiner purports that the frequent interaction of planning participants and the exchange of ideas is important for planning success (1979). Below et. al. submit that strategic planning success is directly proportional to the degree of commitment of the managers that develop the plan (1987). Additionally, management commitment is often linked to the perceived benefits of strategic planning (Wheelen, 1998). Strategic planning involves evaluation and choice concerning a large set of interrelated issues. It should be viewed as a continuous process, rather than a single act (Amey, 1986; Macmillian et. al., 2000).

Papke-Shields investigated the relationship between planning intensity and organizational success in the manufacturing sector (1997). She found that higher levels of planning intensity resulted in improved organizational success. Expecting a similar relationship in the construction industry, the hypotheses for this study is:

H7a: *There is a positive relationship between planning intensity and financial performance as measured by return-on-investment.*

H7b: *There is a positive relationship between planning intensity and performance as measured by percentage growth in annual revenue.*

6.3.6 Integration

Hamel and Prahalad submit that the future is now. They suggest that there is not a clear demarcation line between short-term and long-term. Rather the short-term actions of today and the long-term objectives of an organization are intertwined (1994). "Unless the long-range is built into, and based on, short-range plans and decisions, the most elaborate long-range plan will be an exercise in futility (Drucker, 1974:122). Supporting Drucker's assertions, Higgins notes that "strategy, regardless of how elegantly conceived, how comprehensive its scope, or how forward-looking its thrust, does not provide competitive advantage until it is communicated, understood, valued and acted upon by a variety of key corporate stakeholders" (1996:XIX).

Plan 'integration' is a measure of the operationalization and institutionalization of an organization's strategic plan (Pearce and Robinson, 1985). It involves issues including the level and method of plan communication, development, and implementation of actions plans and programs (Wheelen, 1998), allocation of resources, selection of projects (Skitmore, 1989) plan monitoring activities, strategic plan-business plan linkage, and the relationship between strategic plan objectives and managerial incentives (Kukalis, 1988; Hamermesh, 1996). Kukalis submits

that "strategic planning is perceived as a means of planned change, and its integrative function is realized in that the objectives, strategies, and programs articulated in the long-range plan form a common basis for behavior of company members" (1988:399). Integration is a process of 'aligning' the organization and its actions with the strategic intent of the firm (Fredrickson and Mitchell, 1984; Collins and Porras, 1994). It entails the identification of measurable short-term objectives, the development of specific functional strategies, and the communication of policies and guidelines to align short-term decision and actions with long-term intent (Macmillian et. al., 2000).

Grundy (1995) submits that many organizational strategies fail because of implementation 'droop'. The strategies may be sound, but the strategic intent is not manifest in the administrative and operational decisions and actions of the organization. Similarly, Nelson (1994) asserts that when a firm gets into operational difficulty, it generally means that operations were never properly linked to strategy. Strategy must be embedded in policy formulation (McNichols, 1983), coordinated at a functional level (Chinowsky, 2000), provide the supporting rational for resource deployment (Stahl and Grigsby, 1992), embody the budgetary framework and control systems, and be supported by the behavior of individuals throughout the organization (Egbu, 1999; Langford and Male, 1991). The implicit argument being that a higher degree of plan integration will lead to an increased likelihood of strategy implementation resulting in improved long-term performance. Building upon this supposition, the hypotheses to be tested in this study are:

H8a: *There will be a positive relationship between plan integration and financial performance as measured by return-on-investment.*

H8b: *There will be a positive relationship between plan integration and performance as measured by percentage growth in annual revenue.*

6.4 SUMMARY

This chapter presented and defined the constructs to be utilized in this study to characterize both performance and strategic planning. Organizational performance will be measured by evaluating a firm's 'planning effectiveness' and 'financial performance'. The constructs measuring strategic planning include planning *flow, formality, comprehensiveness, participation, intensity, and integration*. Chapter Seven will review the research design and the moderating variables that have been considered in the methodology utilized for this study. It will examine the sampling frame and the logic supporting the sample selection. Measurement of the research constructs will be presented and the data collection methods will be identified.

CHAPTER SEVEN:

RESEARCH DESIGN

7.1 INTRODUCTION

Past studies investigating the planning-performance relationship have typically utilized a rationalist, or positivist, approach incorporating quantitative performance data to investigate the existence of a causal relationship between strategic planning and organizational performance (see Table 5.3.1). This approach has often been facilitated by the use of a simplistic categorization of the strategic planning process and selection of a sample involving only 'publicly' traded corporations that permitted access to performance data. Typically, an organization's strategic planning approach was categorized based upon a limited set of variables used to define the planning process and then the performance of firms in each planning 'category' were statistically compared.

Conversely, research efforts investigating the concept of strategic planning in the construction industry have been limited to studies examining subjective measures of performance (Pienaar, 1988), techniques of plan formulation (Edum-Fotwe et. al., 1994), organizational 'factors' exhibited by successful firms (Konchar and Sanvido, 1999), and/or the identification of strategic management practices (Chinowsky, 2000). The research efforts have typically been interpretive efforts incorporating qualitative data for two primary reasons: 1) the complexity of the concepts – management and strategic planning (Seymour et. al., 1997), and 2) the inability to obtain quantitative performance data. Even studies whose initial research design anticipated the collection of quantitative performance data (Pienaar, 1988; Konchar and Sanvido, 1999) had to revise their approach to accommodate their inability to obtain quantifiable performance data from their sample firms. Therefore, conclusions reached by these studies regarding an association between planning approach and performance are subject to a perceived versus actual performance disparity – a phenomenon found to exist in a study by Leontiades and Tezel's (1980) who in their research effort concluded that perceived benefits were often not supported by a firm's own empirical performance data.

Therefore, in the construction industry there is a 'knowledge gap' concerning the existence of a planning – performance relationship and the most effective strategic planning process. To address this 'knowledge gap' this study is designed as a cross-sectional, exploratory study of US construction contractors to: 1) determine to what extent, if any, a planning-performance

relationship exists, and 2) develop a strategic planning 'best practices' – the planning approach that is most effective. Similar to many research efforts involving construction management this research effort involves issues that are multi-faceted involving both economic and behavioral aspects (Wing et. al., 1998). In addition, this effort investigates a causal relationship (planning – performance) and intends to assemble and disseminate normative advice (best practices). Therefore a single research method is not appropriate.

The first phase of the study will investigate the relationship between planning and performance. Similar to many of the past research efforts examining the relationship (Table 5.3.1) the investigation will use both quantitative and qualitative data. Quantitative data will be collected on *actual* financial performance to permit a rationalist/scientific investigation of the relationship between planning and performance – an approach supported by Wing et. al. (1998) and Rooke et. al. (1997). To overcome the difficulty in obtaining quantifiable performance data experienced by previous research efforts, performance measurement criteria will be selected that provide a comprehensive evaluation of performance, but also respect a firm's need for confidentiality. In addition, qualitative data will be used to investigate the relationship between planning effectiveness and organizational performance. Planning effectiveness is a concept involving management perception and therefore more suitably investigated using qualitative data (Runeson, 1997; Strauss and Corbin, 1990).

The second phase of this study will investigate the planning practices of the 'top' performers identified during the initial phase of this study. This phase of the research seeks to discover the participants' values and perspectives concerning the development and implementation of organizational strategy – their planning process. This part of the study is designed to gain a greater understanding of a complex process (strategic planning) that in turn is linked with an evolving and dynamic organization. An effort that is best accomplished with 'qualitative' research (Marshall and Rossman, 1989; Gummesson, 2000) because qualitative research can facilitate the need for in-depth details and understanding not possible with other methods (Strauss and Corbin, 1990). However, to enhance the validity of the findings, the top performers to be included in this phase of the study will be selected based upon quantitative performance data supplied during the initial phase of this study. This qualitative interpretive approach incorporating quantitative performance data to identify participants will: 1) ensure that only the top performers are providing input on the strategic planning process, and 2) facilitate the development of the strategic planning practices based upon perception and/or interpretation of the leadership from the best performing firms – a credible 'best practices' listing.

The remainder of this chapter will examine in detail the research methodology utilized in the initial phase of this study. It will examine the moderating variables that must be accommodated, or accounted for, in the research design. It will review the sampling frame, unit of analysis, and the targeted respondent. The measurement constructs for strategic planning and organizational performance are identified and empirical support for their use is reviewed. Lastly, the design and selection of the technique for collection of data and instrument used to gather the research data is presented.

7.2 MODERATING VARIABLES

The design of this research has taken into consideration some of the methodological deficiencies and findings of past studies on strategic planning and firm performance. Variables that have been shown to influence the planning-performance relationship have been identified and accounted for in the research design and sample selection. The moderating variables considered in the design include industry type, construction 'category', company size, operating geography, contracting method, and growth strategy of the firm. The following sections review these variables, their purported influence, and the steps taken to account for, minimize, or mitigate the influence of these variables on the planning-performance relationship being investigated by this study.

7.2.1 Industry

Beard and Dess's (1981) study of 40 firms in a "single" industry found that industry profitability was a statistically significant predictor of firm profitability. They concluded that "industry type" was a key determinate of the level of profitability. Lending support to this conclusion, Porter (1985) submits that each industry is unique and 'industry' profitability is a function of industry structure. Recognizing this relationship the population for this study will be limited to a single industry - construction.

7.2.2 Contracting Category or Type

Langford & Male (1991) submit that the construction industry is not a single industry. They purport that the industry can be characterized as a series of overlapping markets of different 'types' of construction (previously noted in Chapter 2). The construction market is commonly broken down into a number of categories, or types of construction, including general building, manufacturing, power, water and sewer, transportation, and hazardous waste (ENR, 2000). Contractors often limit their spectrum of work to one of these categories, or subcategories (Palmer et al.,1995), because each may require substantially different equipment, materials, labor

composition, supervisory skills, technical expertise and management abilities (Cough and Sears, 1994; Eaton, 1999; Male and Stocks, 1991). There is also empirical evidence that profitability varies by contracting 'type' (CFMA, 1999). To minimize variances in performance caused by contracting 'type', the population for this study will be limited to construction contracting firms with a majority of their annual revenue in the category (type) of 'general building'.

7.2.3 Firm Size

Past research efforts have found a correlation between firm size and strategic plan development. Weston's study involving small firms in the field of property and construction found only nine percent of the firms had a documented strategic plan (1996). Conversely, Hasso's study of medium-sized firms in engineering and construction found that almost all of the organizations interviewed for the study had some form of documented strategic plan (1996). Lindsay and Rue (1980) concluded that the 'completeness' of the planning process is positively related to the size and age of the firm. Several other studies have found a correlation between organizational size and the practice of strategic planning (Sheehan, 1975; Quinn, 1985). The planning-size relationship is such that as the size of an organization increases, so does the likelihood of the firm having a well-defined strategic planning process (Sexton, 1985; Betts & Ofori, 1992; Quinn, 1985; Chinowsky, 2000a, 2000b).

In addition, studies investigating the planning-performance relationship have concluded that company size can also influence firm performance (Thune and House, 1970; Wood and LaForge, 1979; Sapp and Seiler, 1981; Robinson and Pearce, 1983). An examination of construction industry financial data supports the existence of a size-performance relationship in the construction industry (RMA, CFMA).

To increase the likelihood that a responding firm has a well-defined strategic planning process, and to mitigate or minimize the variances in performance caused by significant differences in contractor 'size', this study will limit the population to construction contracting firms with an annual volume of greater than fifty million dollars.

7.2.4 Operating Environment

Skitmore (1989) submits the operating environment of every organization has some degree of instability. He notes that strategic decisions take place in this continuously changing environment. A firm's operating environment is a major source of uncertainty and has significant influence on organizational success (Porter, 1985). The operating environment is a firm's 'competitive' setting

(Robinson and Pearce, 1983). It encompasses sales and production variables such as a firm's competitors, product/service demand, resources available for production, laws and governmental regulation, and societal factors which are often unique to each geographical setting (Hillebrandt and Cannon, 1990).

In contrast to other global markets, new construction volume in the US has exhibited reasonably consistent national and regional growth over the past forty years. Table 7.2.1 – 'Gross Regional Product (GRP) Year-to-Year % Change', tabulates economic performance data, from the US Department of Commerce – Bureau of Economic Analysis, for eight regions of the US for the five-year period from 1995-1999. An evaluation of this tabulation reveals that since the mid 1990's economic growth in the US has been positive and reasonably consistent throughout all regions of the country.

Table 7.2.1
Gross Regional Product (GRP) Year-to-Year % Change

Region	1995 GRP % Change	1996 GRP % Change	1997 GRP % Change	1998 GRP % Change	1999 GRP % Change	95-99 Average Annual % Change
New England	5.5%	5.6%	7.2%	7.0%	7.6%	6.6%
Mideast	4.6%	4.9%	5.1%	6.2%	5.6%	5.3%
Great Lakes	4.6%	4.4%	5.9%	6.1%	4.8%	5.2%
Plains	5.3%	6.7%	6.1%	5.1%	4.5%	5.5%
Southeast	6.3%	5.3%	6.4%	6.3%	6.3%	6.1%
Southwest	6.3%	7.5%	9.3%	6.2%	6.3%	7.1%
Rocky Mtns.	7.5%	7.3%	8.0%	7.4%	7.8%	7.6%
Far West	5.3%	5.9%	7.3%	7.4%	8.7%	6.9%
Total	5.5%	5.6%	6.6%	6.4%	6.4%	6.3%

Source: US Department of Commerce – Bureau of Economic Analysis

A strong relationship between construction demand and industry profitability is professed by industry scholars (Hillebrandt and Cannon, 1990; Langford and Male, 1991) and supported by industry statistics assembled by other organizations (CFMA, RMA, US Bureau of the Census). Geographical setting has an influence on firm performance (Hillebrandt and Cannon, 1990). To minimize the influence of this variable on the present study the sample will be taken from a population of general contractors obtaining at least 90% of their annual volume within the continental US.

7.2.5 Contracting Method

Contracting method has an influence on individual project and firm profitability (Cook, 1988). This correlation is primarily a 'risk-reward' relationship. Contracting methods with a higher degree of risk often warrant a higher percentage fee or markup (Langford and Male, 1991). The

major demarcation line for construction contracting is 'at-risk' versus 'not-at-risk'. 'At-risk' contracting methods have the contractor responsible and liable for total production cost. This type of contracting includes methods such as lump-sum, unit price, and guaranteed-maximum-price (GMP). Conversely, with 'not-at-risk' contracting the contractor is not responsible for the 'project' cost. Contracting methods within this category include cost-plus or professional services contracting (Hillebrandt and Cannon, 1990).

To account for the influence of 'contracting method' on firm performance, data on the percentage of a firm's 'at risk' contracting will be collected and considered in the analysis of the findings.

7.2.6 Growth Strategy

Porter (1985) asserts that the 'centerpiece' of an organization's strategy should be its 'generic strategy'. He submits a firm has only two basic choices - cost leadership or differentiation – and a third (focus or niche) that is a combination or variation of the generic strategies of cost or differentiation. A firm's generic, or 'root', strategy is the foundation for its competitive advantage and its organizational and functional strategies (Porter, 1990). Associated with a firm's generic strategy is an organization's 'directional' strategy. The "directional" strategy establishes the growth orientation of the firm. It addresses the desired rate of change, or aggressiveness with which a firm intends to pursue its growth objectives (Wheelen and Hunger, 1998).

Cook submits that construction contractors are in business to realize a profit and maintain steady growth. Other industry scholars assert a relationship between growth and firm profitability (Milliner, 1988; Jackson, 1999b). Recognizing that a contractor's directional strategy has an influence on the percentage growth of annual volume, and possibly its profitability, the 'directional' strategy of the each firm will be investigated and considered in the analysis of the findings.

7.3 SAMPLE DESIGN

The sample design considers three key elements – sampling frame, unit of analysis, and targeted respondent. The sampling frame selected for this research accounts for the moderating variables of industry, construction 'category', company size, and operating geography of the firm. The unit of analysis is the 'strategic business unit' because of its key relationship with a firm's strategy and competitive advantage. The targeted respondent, the company president/CEO, has been selected because of his/her intimate knowledge and involvement in both the company's and the SBU's strategy formulation and implementation process.

7.3.1 Sampling Frame

The sampling frame utilized for this study will be a composite listing from Dun & Bradstreet and *Engineering News Record*. Dun & Bradstreet (D&B) is a well-known US corporation that has been involved in business-to-business commerce since 1842. The company collects and disseminates financial, credit, marketing, purchasing, and receivables information on more than sixty million companies worldwide. *Engineering News Record* (ENR) is a construction industry weekly periodical published by McGraw-Hill that has been covering the US construction industry since 1874.

D&B's financial database is organized by 'U.S. Standard Industry Classification' (SIC), a numbering system developed by the US Government in the 1930's to classify industries. The SIC system was established to promote uniformity and comparability of data collected by agencies and organizations throughout the US. SIC identifiers for 'general builders' include several of the subcategories for 1541 and all of the subcategories for 1542. In D&B's database the 'general builders' within these two SIC categories with annual revenue of greater than fifty million total six hundred nineteen (619).

Engineering News Record (ENR) started ranking construction firms by size in 1958. This initial ranking of sixty-three firms in 1958 grew to a listing of four hundred by 1964. Each year since then ENR has published a listing of the four hundred largest contracting firms in the US. – titled the "Top 400". Contractor information is provided by each firm and tabulated by ENR. Until 1994 the rankings were based on sales (new contracts). In 1994 ENR shifted to a ranking based upon annual volume because it was viewed as more reliable and less skewed by large contract awards (Tulacz, 1995). In addition to sales and annual revenue, several other 'breakdowns' of annual volume are provided. The amount of each contractor's international revenue is noted. In addition, the percentage of each contractor's volume in each of seven categories is provided. The seven categories include general building, manufacturing, power, water supply and sewerage/solid waste, industrial process and petroleum, transportation, and hazardous waste. This breakdown facilitates the isolation of large 'general building' contractors – the focus of this study. ENR's 'Top 400' in 2000 contained 250 firms with a majority of their work in 'general building'.

Most of the firms listed in ENR's Top 400 are also identified in D & B's listing. A combined listing of the 'general builders' from both sampling frames contains six hundred forty-two (642) firms that are prospective members of the population identified for this study.

7.3.2 Unit of Analysis

Langford and Male (1991) submit that larger construction firms often have a 'divisional' structure. Whether or not the division(s) is geographically remote, it is often a relatively autonomous operating unit that serves a distinctive market. Porter (1985) notes that the division, or strategic business unit, is the 'operational heart' of the company. It provides the competitive base of the organization for a selected service or product arena (Pearce and Robinson, 1985). The SBU is where the firm's distinctive competencies and competitive advantage must be developed and implemented (Porter, 1980; 1985). Because of its strategic and operational importance the division, or strategic business unit, is the 'unit of analysis' for this study.

7.3.3 Targeted Respondent

The selected survey respondent(s) must be able to provide reliable and valid data concerning the research constructs under study (Segars and Grover, 1998; Grundy, 1995). To support valid measurement of a firm's strategy development and implementation process it is essential that the survey respondent have organizational knowledge, experience, and status (Segars & Grover, 1998). The respondent should be intimately involved and actively providing leadership in strategy development and implementation (Below, 1987). They should have a keen understanding of the business and a 'holistic vision' of the organization, its operations, and competitive environment (Grundy, 1995). In order to provide a 'representative' evaluation of its SBU strategy development and implementation effort the respondent must also have comprehensive organizational knowledge and involvement in all of its operating division(s).

In a construction firm, the individual qualified to meet these requirements is the Chief Executive Officer (CEO) of the firm (Hillebrandt and Cannon, 1990; Langford and Male, 1991). It is also possible that some of the 'smaller' firms in the sample may have only one division, or SBU, that is also actively managed by the CEO of the company. Therefore, similar to many of the studies noted in Table 5.3.1, the targeted respondent for this survey is the CEO (or president) of the company.

7.4 MEASUREMENT OF RESEARCH CONSTRUCTS

The constructs used to conceptualize strategic planning in this study include planning *flow, formality, comprehensiveness, participation, intensity, and integration*. The constructs for performance are *planning effectiveness* and *financial performance*. Accurate measurement of these constructs is critical to properly assess the planning-performance relationship. To enhance

reliability and validity, the measurement criteria utilized to evaluate the construct variables will be based upon the work of previous researchers and scholars in this field of study.

7.4.1 Measurement of Planning Constructs

Planning *flow* is concerned with the origination of strategic initiatives and the planning responsibility and authority of the levels of management within the organization (Papke, 1997; Karger & Malik, 1975). Questions that Segars (1994) and Papke-Shields (1997) noted as relevant and necessary to assess planning flow include:

Table 7.4.1
Measurement of Planning Flow

- Where do strategic initiatives originate?
- Where within the organization is the strategic planning process initiated?
- What is the involvement and responsibility of 'senior corporate' managers, 'SBU' or divisional managers, functional or department heads, and 'operations' personnel?
- How can the planning process be characterized – top down or bottom up?
- What is the primary role of senior corporate management – plan formulation or endorsement?

Planning *formality* has been measured by a number of researchers (Sap and Seiler, 1981; Robinson and Pearce, 1983; Rhyne, 1987; Karger and Malik, 1975; Segars, 1994; Papke-Shields, 1997). It is a measurement of the structure and documentation of the strategic planning and implementation process (Papke-Shields, 1997; Grinyer et.al., 1986). Formalization aids in the formulation of goals, identification of strategic issues, deployment of resources, integration of the plan, and the development of organizational management (Hofer, 1978; Welch, 1984). *Formality* refers to the degree to which participants, their responsibilities and authority, and discretion in decision-making are specified (Pearce, 1985). Measurement criteria relevant to this construct are identified in Table 7.4.2.

Table 7.4.2
Measurement of Planning Formality

- The extent of guidelines and procedures for the planning process.
- The formality and structure of the review and approval process.
- The amount of documentation of the planning process and plan outcomes.
- The degree of structure for the development and approval of the strategic plan.

Planning *comprehensiveness* is a measurement of the extent to which an organization considers and evaluates all possible strategic alternatives available to the firm (Papke-Shields, 1997). It is an analytical process that can have varying degrees of breadth and depth concerning

an organization's present strategic position and the generation and evaluation of its strategic options (Fredrickson, 1980). Based on the work of Fredrickson and Mitchell (1984), Segar (1994), and Papke-Shields (1997) the measurement criteria relevant to this construct are:

Table 7.4.3

Measurement of Planning Comprehensiveness

- The exhaustiveness of the information gathering process.
- The thoroughness of the organization's evaluation of its present strategic position.
- The exhaustiveness of environmental evaluation and assessment.
- The emphasis placed on the generation of alternate strategic options.
- The extent to which strategic alternatives are evaluated.

Planning *intensity* is a measure of the organization's commitment to formulation and implementation of its long-term strategy. Many researchers purport that the organizational commitment is directly proportional to 'management' commitment (Below, 1987; Hamermesh, 1986; Hamel and Prahalad, 1994). The intensity of an organization's effort is manifest in variables such as planning frequency, resource commitment, planning horizon, and management support, involvement, and commitment to the planning and implementation process (Papke-Shields, 1997; Faulkner et. al., 1995). Measurement criteria appropriate to evaluate this planning construct are noted in Table 7.4.4.

Table 7.4.4
Measurement of Planning Intensity

- The frequency of the strategic planning cycle.
- How often organizational members discuss and evaluate strategic issues.
- The frequency and depth of review for planning conformance.
- The length of the planning horizon.
- Resource commitment level to planning and implementation of strategic initiatives.
- Management commitment to plan formulation and implementation.

Creating a firm's future is a journey that is fueled by the emotional and intellectual energy of the members of the organization (Hamel and Prahalad, 1994). Broad organizational participation is essential for development of viable strategic alternatives (Bryson, 1995), and key for organizational commitment (Hamel and Prahalad, 1994) and development of a 'shared intent' (Stacey, 1993). To be valid, measurement of the construct - *planning participation* – must address the number and diversity of the participants in addition to the degree and quality of their involvement (Dyson & Foster, 1982; Papke-Shields, 1997). Criteria appropriate to evaluate and define 'planning participation' are:

Table 7.4.5
Measurement of Planning Participation

- The amount and diversity of planning participation.
- The level of involvement in the planning and implementation process.
- The degree of communication between planning participants.
- The quality of input provided by various levels of the organization.

"Strategy, regardless of how elegantly conceived, how comprehensive its scope, or how forward-looking its thrust, does not provide competitive advantage until it is communicated, understood, valued and acted upon by a variety of key corporate stakeholders (Higgins, 1996:XIX). Strategy formulation and implementation should result in an "integrated whole" (Fredrickson and Mitchell, 1984). *Planning integration* involves plan communication, identification of measurable objectives, development of organizational policies and allocation of resources, alignment of functional strategies (Pearce, 1985), coordination with operating budgets, and the selection of programs and market niches (Skitmore, 1989; Lansley et al., 1979). For effective integration, plan implementation should also be linked to plan control, performance evaluation, and managerial compensation (Male and Stocks, 1991). "Strategic planning is perceived as a means of planned change, and its integrative function is realized in that the objectives, strategies, and programs articulated in the long range plan form a common basis or behavior of company members" (Kukalis, 1988:399). Criteria relevant for measurement of this planning construct are identified in Table 7.4.6.

Table 7.4.6
Measurement of Planning Integration

- The degree to which the strategic plan is communicated throughout the organization.
- The extent to which strategic objectives influence functional strategy.
- The degree to which strategic objectives influence resource allocation.
- The degree to which strategic objectives influence project selection.
- The linkage between strategic plans and operating budgets and annual plans.
- The linkage between strategic objectives and managerial performance evaluation.
- The frequency and scope of evaluating progress toward strategic objectives.

7.4.2 Measurement of Performance Constructs

The constructs utilized to characterize organizational performance are *planning effectiveness* and *financial performance*. This will facilitate both a qualitative and a quantitative assessment of firm performance.

The evaluation of *planning effectiveness* builds upon the work of Segar (1994), Segar and Grover (1998), Papke-Shields (1997), and Wheelen (1998). Measurements of *planning effectiveness* will assess the 'contribution' that strategic planning provides the organization through improved situation analysis and understanding, and the 'improvement' in organizational capabilities resulting from an increased understanding and knowledge facilitated by the planning effort. Segar (1994) investigated these constructs and established measurements that where found to have strong evidence of content validity. Building upon his work, and that of Segar and Grover (1998), Papke-Shields (1997), and Wheelen (1998), Table 7.4.7 and Table 7.4.8 present criteria that will be utilized to evaluate the planning effectiveness of an organization's strategic planning (SP) effort:

Table 7.4.7
Measurement of Planning Effectiveness - Contribution

- The extent to which SP enhances the firm's strategic vision.
- The impact that SP has on the generation of new and novel ideas.
- The perceived contribution that SP makes to financial performance.
- The impact SP has on strategic managerial decisions.
- How often strategic plans are actually implemented.
- The degree to which SP enhances a firm's competitive advantage.

Table 7.4.8
Measurement of Planning Effectiveness - Improvement

- The impact that SP has on the firm's ability to identify key problem areas
- The contribution of SP toward the firm's understanding of its organizational capabilities.
- The contribution SP has toward the firm's ability to anticipate environmental surprises.
- The contribution of SP to the firm's understanding of its 'business'.
- The impact of SP on the firm's understanding of its competitive environment
- The impact of SP on organizational understanding of strategic objectives
- The impact of SP on organizational cooperation to achieve strategic objectives

This study will also utilize a quantitative measure of firm performance that incorporates key financial measurements. The financial indicators selected will be 'return on tangible investment' (ROI) and the 'percentage of annual volume growth'. ROI has been selected because its extensive use in previous studies as a quantitative measurement of firm performance (see Table 5.3.1). ROI is considered a comprehensive, risk adjusted, asset related measurement of profitability (Jackson, 1999b). Comparable to industry's definition, the operational definition for ROI is the percentage

of 'net profit before taxes' divided by the tangible equity (investment) as of the end of the fiscal period (Jackson, 1999b).

The second measurement, 'annual *volume* growth', was selected because it is a representative indicator of firm activity (Hillebrandt and Cannon, 1990). The operational definition utilized in this study is the 'percentage of the difference in annual revenue between the current and preceding fiscal period divided by the annual revenue for the preceding fiscal period'. To improve the reliability of both of these performance measurements, performance will be measured over a 5-year period.

7.5 DATA COLLECTION

Data collection techniques must be selected to support the research design, investigative objectives, and population characteristics (Cooper and Emery, 1995). The following sections of this chapter identify the data collection technique incorporated in this study and the underlying rationale and support for its application to this research effort.

7.5.1 Survey Methodology

The options available to obtain pertinent research data range from an in-depth case study of a small number of firms (Edum-Fotwe et. al.,1994) to a self-administered survey, of limited breadth and depth, from a large sample (Chinowsky, 2000). The vast majority of the studies noted in Table 5.3.1 utilized a self-administered survey of limited scope, which is similar to past studies involving construction contractors (Pienaar, 1988; Konchar and Sanvido, 1999; Kululanga et. al., 1999; Edum-Fotwe et. al., 1994; Chinowsky, 2000).

Self-administered surveys are widely used in research involving construction companies because the geographical dispersion of construction companies often makes the collection of data by personal interviews prohibitively costly and time consuming (Edum-Fotwe et. al., 1994). However, self-administered surveys have some significant limitations. These limitations include the researcher's inability to confirm respondent understanding of concepts and constructs used in the survey instrument, non-response error, and the limitation on the 'depth' of the information that can be obtained (Cooper and Emory, 1995). While these limitations can be minimized by pilot testing the survey instrument and expanding the depth and breadth of the questionnaire (Cooper and Emory, 1995), the complexity of the concepts under study requires additional investigative measures.

Similar to the research efforts of the preceding scholars, a self-administered survey will be used to obtain data concerning general planning practices, perceived effectiveness, and performance data. Subsequent to the initial feedback from the self-administered questionnaire, personal interviews will be conducted with the top performers to obtain a clearer, and deeper, understanding of the planning practices of the best performers. The ultimate objective of the interviews is to obtain sufficient input to establish 'best practices'.

The use of a self-administered questionnaire will facilitate expanded participation from the population and provide sufficient data to evaluate the planning-performance relationship as well as serve to identify the best performers to be included in the sample for personal interviews. The use of a self-administered questionnaire will also permit contact with respondents that might otherwise be inaccessible, reduce situational error and interviewer bias, and can improve validity by providing for respondent anonymity (Cooper and Emory, 1998). The subsequent use of personal interviews with the best performing firms that have been identified from responses to the questionnaire will provide the quality of data and planning insight needed to establish the strategic planning practices of the best performers – to establish the 'best strategic planning practices' for large general contractors.

7.5.2 Survey Techniques

Two survey techniques were incorporated into the research design. The initial phase of the research utilized a self-administered questionnaire. This was subsequently followed-up with a personal interview with an officer of the top performing firms.

Self-Administered Questionnaire

A self-administered questionnaire was developed to incorporate the measurement variables for the constructs conceptualizing strategic planning (*flow, formality, comprehensiveness, participation, intensity, and integration*) and performance (*planning effectiveness* and *financial performance*). The instrument's length was designed to provide substantive and comprehensive input on the subject under investigation, but balanced with the need to encourage response. Nominal data was used to categorize the respondents and obtain data for several of the moderating variables discussed earlier in this chapter. However, the principal measurement technique used statements that required the respondent to select an appropriate response from a corresponding interval scale. To improve the sensitivity of measurement a seven-point Lickert scale was utilized. It was anticipated that paired t-testing techniques will be used to evaluate the existence of a relationship between each, or a combination of, the strategic planning and firm performance constructs.

The actual questionnaire contained five sections (Appendix B). *Section I: General Information About Your Firm* requested data on the firm to confirm compliance with the moderating variables of contracting category, geography, and method of contracting. *Section II: General Information About Your Firm's Operating Environment* solicited input on the organization's perception of their operating environment to evaluate the level of 'turbulence' perceived by the firm. *Section III: General Information about Your Firm's Strategy* asked the respondent to provide information concerning the firm's generic strategy and general information concerning the firm's strategic planning practices. Firms that did not practice strategic planning where asked to skip the remaining questions relating to planning practices and proceed to Section V of the instrument that allowed the respondents to provide performance data on the firm. Performance input from all respondents would facilitate a comparative analysis of firms practicing strategic planning with those that did not develop strategic plans. *Section IV: Information Concerning Your Strategic Planning Process* contained a series of questions to evaluate *each* of the constructs utilized to define strategic planning and firm performance as well as those developed to evaluate planning effectiveness. The last part, *Section V: Information Concerning Your Firm's Performance*, requested actual performance data and performance trends as well as the respondent's perceived performance of their firm compared to their competitors.

To enhance content and construct validity, as well as measurement reliability, the survey instrument was pilot-tested using six members representative of the population under study (Cooper and Emory, 1995). Administration of the pilot survey and collection of the data simulated the intended procedures for the research sample at large. Feedback from the pilot-test respondents concerning content, scope, question structure, construct understanding, response scales, and survey techniques was solicited (Appendix C).

The pilot group identified several concepts requiring clarification, including the need for an operational definition for a 'strategic business unit'. Respondents noted that the response scale 'orientation' for the questions in Section III (question 3) was confusing and that the performance scale in Section IV did not allow for entry of ROI below a negative 10% or more than a positive 30% per year. Additionally, modification of several questions in Section IV was suggested to improve reliability. Subsequent to evaluation of their critiques, the survey instrument was amended to accommodate the instrument weaknesses identified. A copy of the final survey instrument is included in Appendix B.

As suggested by Cooper and Emery (1995), a number of steps were taken to improve the response rate. A personalized cover letter accompanied all questionnaires (Appendix B). Each respondent was offered a summary of the study findings including an individualized profile of their firm's

strategic planning process. A stamped, self-addressed envelope was provided for ease of the return. Survey return date deadlines were noted and respondent, as well as company, anonymity was assured.

Within two weeks of the initial mailing one hundred and sixteen firms had responded. To increase the response rate a follow-up letter, and an additional copy of the survey, was distributed to the members of the population that had not yet been identified as having provided a response (Appendix D). Subsequent to this second mailing another forty-seven firms submitted a response to the survey.

Personal Interviews

The research methodology also included personal interviews with the top performing contractors. The purpose was to obtain additional insight into their generic strategy and strategic planning processes of the best performers with an ultimate objective of developing a list of 'best practices' for strategic planning. Identification of the sample to be used for the interview process was to be accomplished subsequent to receipt and analysis of the data from the respondents to the self-administered surveys. Due to the anticipated geographical dispersion of the sample, the interviews were designed to be conducted over the telephone. The length of the interview was anticipated to be 45-60 minutes and the actual targeted respondent was the President/CEO of the firm.

The personal interviews were 'structured' to focus on those topics and questions identified in Appendix E. The topics and questions were chosen to 'compliment' and 'expand' on the information collected from the self-administered survey. The areas of interest for plan development were the planning process, planning guidelines and criteria, mission and vision, internal and external assessment, strategy selections, objectives, and plan review and approval. For the implementation process, the topics selected included plan communication, action plan development, business plan integration, management's commitment, plan influence on tactical decisions, and progress monitoring. Additional areas of planned discussion included the influence of strategic planning on organizational success, actions taken to increase commitment to plan initiatives, changes to the planning process that the respondents deem necessary, and the perceived benefits of strategic planning.

7.6 SUMMARY

The research methodology has been designed to isolate and mitigate the primary moderating variables for the planning-performance relationship. A population of large general contractors was selected from respected and appropriate sampling frames. A survey instrument was developed to

evaluate each of the planning and performance constructs and was pilot tested to enhance reliability and validity. The self-administered questionnaire was then distributed to the identified population and the respondents were provided approximately thirty days to respond.

Chapter Eight will examine the data collected and review the findings based upon the data received from respondents to the self-administered survey. The research data will be analyzed and the hypotheses will be statistically evaluated.

CHAPTER EIGHT:

FINDINGS AND ANALYSIS

8.1 INTRODUCTION

This chapter reviews the survey responses, evaluates the extent to which the sample represents the population, and examines the method used to code and record the survey data. It presents the findings and analysis of three groupings of respondents – all respondents, firms developing strategic plans (planners) versus firms that did not develop strategic plans (non-planners), and all planners. This chapter also evaluates performance based upon four criteria – actual annual revenue growth, actual return-on-investment, planning effectiveness, and the respondent's perceived performance of their firm relative to their competitors. In addition, the relationships between firm size and strategic planning constructs are examined.

The vast majority of the data collected were interval data that lends itself to statistical analysis. Statistical testing, when performed, typically involves one of three approaches: a) a one tailed t-test, assuming two samples of unequal variance, b) a test of a sample's mean versus an hypothesized mean, or c) the correlation between two variables. All statistical testing was performed with a level of significant equal to .05, unless noted otherwise. Typically the alternate 'test' hypothesis is presented in the text and the hypothesized mean difference is zero.

8.2 SURVEY RESPONSE

The cover letter and survey questionnaire were initially distributed to six hundred forty-two (642) contractors identified as 'general building' contractors with annual revenue of fifty million or greater. The sampling frame used was *Engineering News Record's Top 400 (year 2000)* and *Dun & Bradstreet*. Respondents were given approximately five weeks to respond. In an effort to increase the response rate a follow-up request, and an additional copy of the questionnaire, were sent approximately three weeks after the first request.

Five questionnaires were returned with no forwarding address for the firm. Further investigation revealed that these firms were no longer in business. Additionally, two questionnaires were returned with notations that the company was no longer in the 'construction' business. Accounting for these 'non-members' of the population, the general contractor population contained a possible six hundred thirty-five (635) firms.

8.2.1 Survey Respondents

By the cutoff period one hundred sixty-three (163) firms had responded to the survey. This equated to a response rate of twenty-six (26%) of the total population and at least twenty-eight percent (28%) of *Engineering News Record's Top 400*. Only sixteen of the one hundred sixty-three firms that responded did so anonymously. One hundred forty-seven (147), or ninety percent, provided company and respondent identity.

Key moderating variables that can influence the planning-performance relationship include industry, firm size, contracting 'type', area of operation, and contracting method. To account for these key-moderating variables the research design, and survey questionnaire, were structured to isolate and identify these organizational variables for each firm (Appendix B). To be included in the study, respondents had to have greater than fifty million in annual revenue, derive greater than fifty percent of their revenue from 'general building', obtain greater than ninety percent of their revenue from within the US, and contract 'at-risk' for greater than fifty percent of their volume.

Table 8.2.1
Usable Respondents

Total Responses		163	(26% of population)
Rejected Responses			
Less than 50% Revenue from General Building		5	
Annual Volume less than 50 million		6	
Less than 50% Revenue at Risk		4	
	Total Rejected	15	(9.2% of respondents)
Net Usable Respondents Meeting Study Criteria		148	

As shown in Table 8.2.1 – *Usable Respondents*, fifteen or 9.2% of the one hundred sixty-three (163) respondents did not meet the criteria for inclusion in this study. Five were rejected because they did not receive greater than fifty percent of their revenue from 'general building'. Six firms were rejected because their annual volume was less than fifty million and four more firms did not qualify because a majority of their annual volume was not contracted 'at risk'. Based on the assumption that the respondents are representative of the population, the likely size of the population meeting the study criteria is approximately five hundred seventy-seven firms (90.8% of the original 635 firms).

A small number of the firms submitted incomplete questionnaires. All of these were from firms that provided their identity, which facilitated phone and mail follow-up for resolution of any

outstanding questions. As a result, only three respondents were rejected because of incomplete information.

In summary, of the one hundred sixty-three respondents a total of one hundred forty-five (145), or 25% of the probable population (28% of *ENR's Top 400*), met the criteria of the study and provided complete and usable responses. Considering the geographical dispersion of the respondents, the length of the questionnaire, and the sensitivity of the requested information a response rate of twenty-five percent (25%) would be considered exceptional (Cooper and Schindler, 1998).

8.2.2 Population Representation

An important consideration for the usable sample of any study is the degree to which the sample represents the characteristics of the population it purports to represent. While no sample will fully represent the population in all respects, it is important for the sample (respondents) to have characteristics similar to the overall population (Cooper & Emory, 1995). Appropriate measurements of the representativeness of the respondents in this study would include similarity to the characteristics of the population with regard to geographical dispersion, firm size, financial performance, and contracting method.

The two primary organizations that collect and publish performance data on contractors are RMA and CFMA. Of these two, only CFMA publishes data on a regional, or geographic, basis. CFMA divides the US into six regions – Northeast (NE), Southeast (SE), Southwest (SW), Midwest (MW), West (W), and Far West (FW). Table 8.2.2, *Geographical Location of the Population and Respondents*, presents the number and percentage of firms of the population that are located in each Region, all respondents from each region, and the useable respondents from each Region.

The percentages of all, and useable respondents from the NE, SE, SW, and MW regions are similar to the distribution of the population. The sample has a higher weighting of firms from the Southeast and West, and a lower weighting of firms from the Far West. However, the combined weighting of the two adjoining 'Western' regions, that have had similar economic growth rates over the past five years, is reasonably close to the combined weighting for the population (23.5% vs. 25.5%). While the distribution of the sample is not identical to that of the population, there is a strong correlation (.70) between the two. There is support for the assertion that the sample has a reasonable representation of firms from all regions of the US.

Table 8.2.2
Geographical Location of the Population and Respondents
CFMA – Industrial and Non-Residential Contractors

Population			Respondents			
Region*	# of Firms	% of Population	# of all	% of all	# of Useable	% of Useable
NE	138	21.7%	33	20.2%	31	21.4%
SE	129	20.3%	39	23.9%	35	24.1%
SW	86	13.5%	21	12.9%	18	12.4%
MW	120	18.9%	32	19.6%	27	18.6%
W	58	9.1%	23	14.1%	20	13.8%
FW	104	16.4%	15	9.2%	14	9.7%
	635	100.0%	163	100.0%	145	100.0%

*NE (Northeast): Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont
SE (Southeast): Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia
SW (Southwest): Arkansas, Kansas, Louisiana, Missouri, Oklahoma, and Texas
MW (Midwest): Illinois, Indiana, Iowa, Michigan, Minnesota, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin
W (West): Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming
FW (Far West): Alaska, California, Hawaii, Oregon, and Washington

The average annual volume in the fiscal year 2000 of all six hundred thirty-five (635) firms comprising the initial population was 239 million. The annual volume of the useable respondents ranged from 50 million to 1.9 billion and had a similar average volume of 257 million in the fiscal year 2000.

The CFMA contracting 'category' that most closely matches the contracting 'type' under investigation is their classification of 'Industrial and Non-Residential' contractors. Over the past five years firms in this CFMA contracting category have averaged 19% Return-on-Investment (ROI). RMA's contracting category most closely aligned with the study is their 'Commercial Contractors'. Firms in this category, with an annual volume greater than 25 million, averaged a 25% return and had a composite rating of 21% ROI during the fiscal period 1996-2000. In comparison, the average ROI for the usable respondents of this study ranged from a negative ten percent (-10%) to a high of eighty-nine percent (89%) with a mean annual return of investment of 22% during the 1996-2000 fiscal periods, which is similar to both CFMA and RMA.

The only available literature source that provides a percentage breakdown of annual volume in a contracting 'category' for large US contractors is Engineering News Record (ENR). ENR's annual 'Top 400' listing of the largest contractors in the US provides for a distribution of a contractor's revenue among seven contracting categories or types, including 'general building'. In the year 2000, the contractors that were members of the study population had an average of 89%

of their work in the 'general building' category. Similarly, the usable respondents for this study averaged 89% of their annual revenue in fiscal 2000 in the category of 'general building'.

In summary, the geographical dispersion, firm size, financial performance, and contracting method of the sample are very similar to the characteristics of the study population. This similarity provides support to the supposition that the sample is reasonable representation of the population and is appropriate for use in this study.

8.2.3 Data Entry and Coding

Prior to data entry the response choices for each survey question with an interval response scale were coded to correspond to the numerical response options on the questionnaire. Typically, coding ranged from 1 for a response selection of 'strongly disagree' or 'very unimportant' to 7 for 'strongly agree' or 'very important'.

In addition, the actual responses of the respondents were coded and tabulated to reflect characteristics consistent with those hypothesized – characteristics that may not have been consistent with the structure of the question. For instance, responses to questions relating to the operating environment in Section II of the questionnaire were coded to reflect conditions consistent with a dynamic and rapidly changing environment (a higher rating corresponds to a more dynamic environment). For example, the first question in this section was 'Customer requirements are fairly easy to predict', a condition not consistent with a dynamic environment. Therefore, response selections were coded as a 'mirror' image (a selection of '2 – Moderately Disagree' was coded as '6 – Moderately Agree'). A similar approach was taken on the responses for questions relating to the planning *flow, formality, comprehensiveness, intensity, participation,* and *integration* of the strategic planning effort in Section IV of the questionnaire. Questions in Section V addressing the trend of a firm's ROI and annual volume were coded ranging from 1 for 'Rapidly Declining' to 7 for 'Strong Growth'.

All survey responses, regardless of the data 'type', were recorded and tabulated on a computerized spreadsheet. To eliminate coding and data entry error, the coding and recording of all responses was entered and then rechecked to ensure accuracy.

8.3 FINDINGS AND ANALYSIS OF ALL RESPONDENTS

The survey questionnaire's primary focus was to obtain information from contractors developing strategic plans, however the questionnaire was structured to permit non-planners to respond to a

portion of the survey. This permitted the evaluation of certain characteristics of the entire sample (and correspondingly the population). In addition to general information about the firm, the categories designed to encourage input from all respondents (planners and non-planners) were those addressing the contractors' operating environment, their generic competitive strategy, and the firm's performance.

8.3.1 Operating Environment

As previously noted, responses were coded and recorded to reflect conditions of a dynamic and rapidly changing market – operating conditions where customer requirements are difficult to predict, demand is not easy to forecast, product innovation is high, client demands are rapidly changing, competition is intense, a firm often needs to change its competitive practices, the actions of competitors are difficult to predict, technology change is high, it is difficult to differentiate product and/or service, and the impact of governmental regulation is high. Ratings range from '1' corresponding to a very stable environment to '7' for a very unstable, highly dynamic, operating environment. Table 8.3.1 *Characteristics of the Operating Environment* presents the mean respondent rating for each of the environmental variables evaluated in the study.

The highest ratings were for the competitive intensity of the industry with the resulting impact on a firm's competitive practices. The lowest ratings were for characteristics including product innovation and the ability to predict customer requirements.

Table 8.3.1
Characteristics of the Operating Environment

Environmental Variable	Mean Rating*
Competition in our market(s) is intense	6.2
We often need to change our competitive practices**	5.6
The services that clients demand are rapidly changing	5.1
The impact of governmental regulations and policies is substantial**	5.1
The actions of our competitors are difficult to predict**	4.3
Construction demand is relatively difficult to forecast	4.2
It is difficult to differentiate our product and/or service	4.2
The rate of technology change in our industry is high**	3.4
Customer requirements are difficult to predict**	3.3
The rate of product innovation is high	3.3
Average Rating	4.5

*Ratings are 1=strongly disagree, 2=moderately disagree, 3=slightly disagree, 4 neither agree or disagree, 5=slightly agree, 6=moderately agree, 7=strongly agree
**Question adjusted to reflect scoring consistent with a dynamic, rapidly changing environment

The responses for each characteristic were subjected to one-tailed statistical testing with a level of significance of .05 around a mean of 4.0 that corresponds to an environmental state that is neither stable or unstable. The results of the statistical testing findings are that the operating environment has several characteristics consistent with a dynamic and rapidly changing environment – competition is intense, the impact of governmental regulation and policy is substantial, client demand is rapidly changing, construction demand is relatively difficult to forecast, and frequent adjustment of a firm's competitive practices is necessary. Conversely, characteristics consistent with a stable environment include low product innovation, customer requirements that are predictable, and a rate of technological change that is low.

The overall average rating for the environmental characteristics of 4.5 corresponds to a 'slightly unstable' or 'slightly dynamic' operating environment. This environmental condition does not support Male and Stocks (1991) & Betts & Ofori (1992) assertions that the construction industry is highly dynamic and changing environment, but does lend support for Junnonen's (1998) assertion that the industry is a mature, somewhat unstable, and highly competitive industry with a comparatively well-known and established technology - conditions that would support effective long-range strategic planning. However, any conclusions concerning the stability, or instability, of the operating environment must be tempered in light of the general stability of the overall US economy during the study period (1996-2000).

8.3.2 Generic Strategy

Respondents were asked to identify their company's overall generic strategy. Four possible choices were provided – 1) stability (concentration, no or minimal growth), 2) internal growth (innovation, market and product/service development), 3) external acquisitive growth (vertical & horizontal integration, joint venture, acquisition), and 4) retrenchment (turn-around, divestiture, liquidation). Table 8.3.2 – *Generic Strategies of the Respondents*, tabulates the responses.

Table 8.3.2
Generic Strategies of the Respondents

Generic Strategy	# of Respondents	% of Respondents
Internal Growth	116	80.0%
External Acquisitive Growth	12	8.3%
Combination of Internal & External Growth and	3	2.0%
Internal and/or External Growth Subtotal	131	90.3%
Stability	10	6.9%
Retrenchment	4	2.8%
	145	100%

One hundred sixteen (116), or 80.0%, of the respondents identified *internal growth* as their primary generic directional strategy. Twelve (12) had a strategy of external acquisitive growth and three additional respondents selected a combination of the two. In total, one hundred thirty-one of the respondents, or 90.3%, had a 'growth' strategy. Only 9.7% of the respondents were *retrenching* or seeking no, or minimal, growth through a strategy of *stability*. Similar to the respondent's perception of their environment, this strong propensity for a growth strategy by the respondents may be significantly influenced by the sustained growth of the US economy during the period under study.

Table 8.3.3 – *Generic Strategy vs. Actual Annual Rate of Growth*, tabulates the actual annual percentage revenue growth for the respondents over a five-year period (1996-2000). Correlating with a strong US economy, all respondents averaged 15.3% annual growth in revenue. Even those firms seeking *retrenchment* averaged a positive annual growth rate (10.3%) and combined with those firms pursuing a strategy of no, or minimal growth (retrenchment or stability), together had an average annual growth rate of 8.7%.

Table 8.3.3
Generic Strategy vs. Actual Annual Rate of Growth

Generic Strategy	*Average Annual* % Revenue Growth (1996-2000)
Stability	8.1%
Retrenchment	10.3%
Stability & Retrenchment Combined	8.7%
Internal Growth	15.5%
External Acquisitive Growth	20.4%
Combination of Internal & External Growth and	18.6%
Internal and/or External Growth Combined	16.0%
All Strategies Combined (all respondents)	15.3%

Firms pursuing a 'growth' strategy averaged a 16.0% annual rate of growth with the highest rate recorded by those firms pursuing a strategy of e*xternal acquisitive growth* (20.4%). The combined average annual rate of revenue growth (16.0%) for the firms with a 'growth' strategy was almost twice the rate for firms with a 'no growth' strategy.

When the annual growth rates of these two groupings (growth and no-growth) are subjected to statistical testing (t-tests: two samples assuming unequal variances), it can be concluded that those

firms pursuing a 'growth' strategy had a statistically significant higher annualized rate of growth that the firms with a 'no-growth' strategy.

8.3.3 Competitive Strategy

Respondents were asked to address questions relative to two fundamental concepts concerning their competitive strategy – 1) the strategic organization of the firm, and 2) the firm's competitive approach (how they compete).

The first concept, strategic organization, investigates if the firm was organized and structured as multiple strategic business units (SBU). The operational definition of a SBU was 'a semi-autonomous division or profit center operating from a remote office, and/or a semi-autonomous business unit with a specialized product(s) or service 'niche(s)'.

Schleifer (2000) and Chinowsky (2001) submit that a niche, or SBU, focus reduces operational risk, encourages organizational development, facilitates improvement of a firm's competitive advantage, and improves financial performance because it encourages an organization to take advantage of its 'core competencies'.

An evaluation of the responses revealed that ninety, or 62.1%, of the respondents are organized with multiple strategic business units. However, statistical comparison of the two groups, using a level of significance of .05, does not support Schleifer's (2000) and Chinowsky's (2001) supposition. The conclusion supported by the data from this study finds that "there is no difference in financial performance, as measured by ROI, between firms that are organized into multiple SBU's and those that are not".

However, this conclusion may be significantly influenced by the moderating variable – firm size. The average annual volume in fiscal 2000 of firms without SBU's was 132 million, whereas the average size of firms with SBU's was over twice as large at 335 million. An analysis of this variable, firm size, yields an expected conclusion that "larger firms are more likely to have multiple SBU's than smaller firms".

The second competitive concept that the respondents were asked to address concerned the firm's competitive approach, or competitive strategy that the firm used to sell its primary product and/or service. Table 8.3.4 – *Competitive Strategy* tabulates the respondents' mean rating of importance for a series of variables associated with this concept.

The respondents rated the 'level of quality' with the highest level of importance for selling its product or service. Respondents viewed product and service quality as very important for future sales. Conversely, the ability to compete on low price was rated with the lowest level of importance. Respondents viewed quicker delivery, differentiation of product/service, improvement in cost competitiveness, and the capability to customize products and/or services as having a moderate level of importance. In general, respondents saw themselves competing on 'quality of product/service', rather than 'price'. Again, the responses, and any conclusions drawn based upon them, may be significantly influenced by the general economic state in recent years – when the economy grows, and construction volume increases, it is likely contractors are in a better position to compete based upon quality of service/product, rather than low price.

Table 8.3.4
Competitive Strategy

Competitive Variable	Mean Rating*
Ability to provide a high quality product or service.	6.5
Ability to deliver service/projects quicker than competitors.	6.1
Ability to differentiate service or product.	5.9
Ability to improve cost competitiveness.	5.8
Capability to customize products and/or services.	5.7
Expansion of service or product offerings.	5.1
Capability to compete on low price.	4.9

*1=very unimportant, 2=moderately unimportant, 3=slightly unimportant, 4=neither, 5= slightly important, 6= moderately important, 7=very important

8.4 FINDINGS AND ANALYSIS OF PLANNERS vs. NON-PLANNERS

General information on the contracting firm, environmental perspective, competitive approach, and performance measures were solicited from both firms that practiced strategic planning (planners) and firms that did not develop a strategic plan (non-planners). Similar to a number of past studies, (Table 5.3.1) a comparison and analysis of the data from 'planners' versus 'non-planners' was performed. The results of that comparison are presented in the following sections.

8.4.1 Firm Size and Strategic Planning

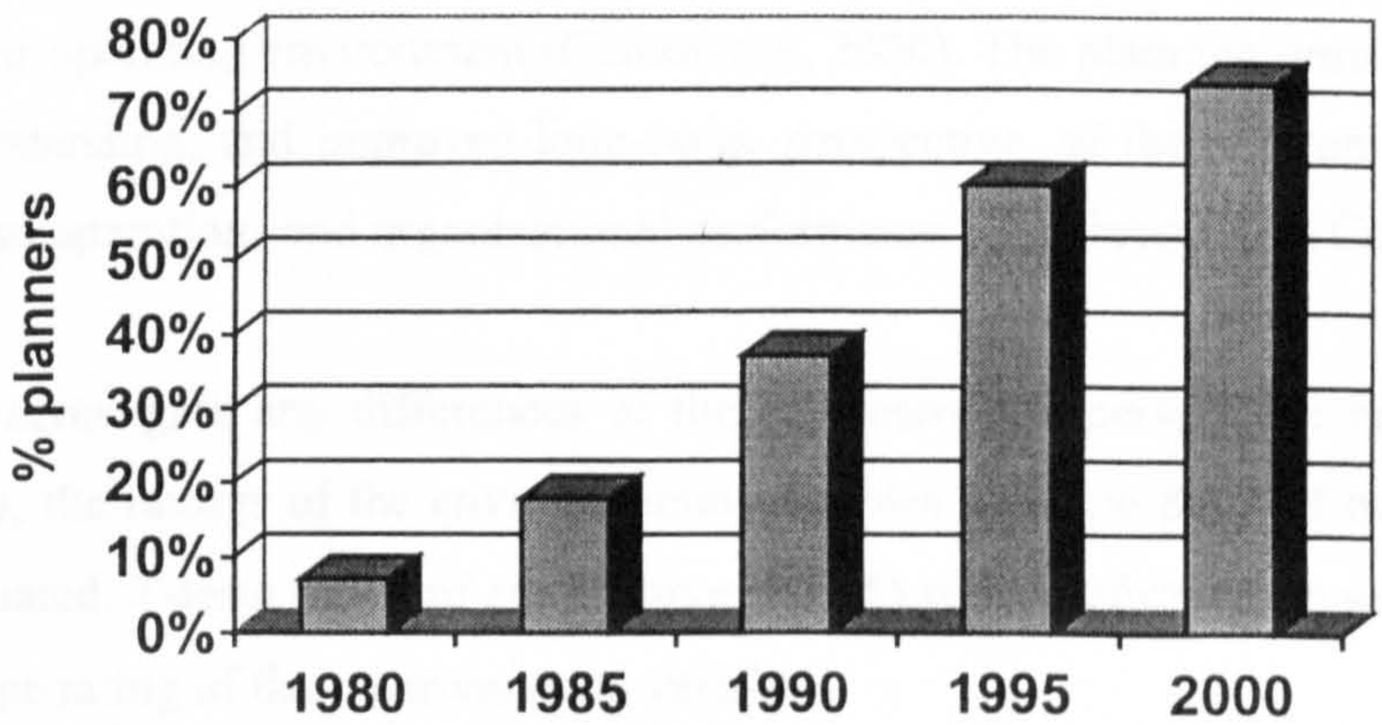
General industry studies (Rule, 1987; Mills, 1985), as well as studies involving construction firms (Pienaar, 1988; Hillebrandt and Cannon, 1990; Weston, 1996; Hasso, 1996; Chinowsky, 2000) have found that smaller companies predominately rely on informal communication of strategic objectives emanating from the leadership of the firm (Michael, 1990; Wilson, 1994; Wheelen et

al., 1998). Smaller firms often do not develop formal strategic plans. Conversely, these studies have found widespread use of strategic planning in larger construction firms – the basis of a hypothesis that was evaluated in this study.

A total of one hundred forty-five respondents provided useable data to investigate the relationship between size and strategic planning. The annual revenue of the firms in the useable sample ranged from 50 million to 1.9 billion. Thirty-four (34) of the firms indicated that they did not have a strategic plan for their firm. Another three (3) firms indicated they had a strategic plan, but they were classified as non-planners because their planning horizon was only 1 year, or more 'tactical' in nature. A total of 37, or 26%, of the sample did not develop strategic plans (non-planners). Conversely, an overwhelming majority of the firms (one hundred eight, or 74%) indicated that they engaged in strategic planning and had developed a strategic plan for the firm (planners).

However, strategic planning is a relatively recent practice for general building contractors. Figure 8.4.1 - *General Builders Practicing Strategic Planning*, identifies the percentage of the sample (and correspondingly the population) that had initiated strategic planning from 1980 through the year 2000. Prior to 1980 less than one out of every twelve contractors had a strategic plan and as late as 1990, only thirty seven percent (37%) of the sample had started developing strategic plans.

Figure 8.4.1
General Builders Practicing Strategic Planning



The annual revenue in fiscal 2000 for non-planners ranged from 50 million to a surprising 724 million. Even some very large contracting firms did not develop strategic plans. The mean size of the non-planners was 131 million. The annual revenue for the planners ranged from 50 million to 1.9 billion with average annual revenue more than twice the non-planners at 302 million. These

two groupings were subjected to a 't-test (with paired samples assuming unequal variances – typical), using a level of significance of .05 to test the following hypothesis.

> *There is a positive relationship between contractor size and the likelihood that the firm develops a strategic plan.* SUPPORTED

The summary statistics are presented in Table 8.4.1, *Size – Planning Relationship Test Statistics*. The conclusion that can be drawn supports the findings of earlier studies. There is a relationship between firm size and the likelihood of a firm engaging in strategic planning. The finding supported by the data is that – 'larger contractors are more likely to develop strategic plans'.

Table 8.4.1
Size – Planning Relationship Test Statistics

	Non-Planners	**Planners**
Mean Annual Revenue	130.54	301.62
Variance	13800.7	159780.5
Observations (n)	37	108
Hypothesized Mean Difference	0	
t Statistic	-3.9749	
t Critical one-tail	1.6557	

8.4.2 Environmental Perspective

Firms that engage in strategic planning are more likely to do a more thorough investigation and evaluation of their operating environment (Chinowsky, 2000). The planning process should result in a better understanding, and improved long-range perspective, of the environmental variables that influence firm operations and organizational performance (Hillebrandt and Cannon, 1990).

To identify and investigate any differences of the environmental perspective between planners and non-planners, the ratings of the environmental variables in Table 8.3.1 of both groups were statistically evaluated. T-tests (level of significance @ .05) were performed on each variable and the overall average rating of the environmental variables.

The findings are that:

- Both planners and non-planners view competition as intense.
- Both groups often need to change their competitive practices to remain competitive.
- Both perceive client demands as rapidly changing, governmental regulation as substantial, and the actions of competitors difficult to predict.

- Both regard technology change and product innovation as slow and view customer requirements as predictable.
- There is limited support (level of significance @ .10) for the assertion that planners find construction demand easier to forecast.

Overall, there is no statistical support for an assertion that planners' perspective of the operating environment is any different that non-planners'. Planning may, or may not, improve a firm's understanding of the market (this was not a focus of the research effort), but it appears to have very limited impact upon a firm's perspective of the market.

8.4.3 Competitive Approach

An evaluation of the competitive approach for both planners and non-planners reveals that 73% of the planners are organized using strategic business units (SBU), whereas only 30% of non-planners have SBU's. Recognizing that planners have significantly larger mean annual revenue, any conclusion must be tempered with the realization that the use of SBU's may be significantly influenced by the moderating variable of firm size.

An assessment of the generic strategies of planners and non-planners highlights a difference between the two groups relative to growth – a larger percentage of planners have a growth strategy. Eighty-three percent (83%) of all non-planners have a growth strategy while 93% of all planners have a strategy of growth through internal development and/or external acquisition.

A comparative analysis of the competitive variables noted in Table 8.3.4 was performed to identify differences in the way planners and non-planners compete. T-tests, with a level of significance @ .05, revealed that both planners and non-planners place importance on delivery of a high quality product/service, fast delivery, differentiation of their product/service, and the ability to customize their services.

The percentage of annual revenue 'at risk' is very similar for non-planners and planners (93% and 91% respectively), however there is statistically significant difference between the two groups relative to the importance of the ability to compete on price. Non-planners place a higher level of importance on the ability to compete based upon low price. There is also limited support (level of significance @ .10) for the assertion that planners place a higher level of importance on the expansion of their services and/or products. Considering that planners are more likely to have a growth strategy, expansion of their products and/or services would be a logical extension of a growth strategy.

8.4.4 Planners vs. Non-Planners – Performance

While a number of studies have investigated the planning-performance relationship (Table 5.3.1) in a variety of industries, none have empirically investigated the relationship exclusively in the construction industry. Several studies have evaluated the benefits of strategic planning in the construction industry (Pienaar, 1988; Hillebrandt and Cannon, 1990; Weston, 1996; Hasso, 1996; Chinowsky, 2000), but all utilized subjective measurements of the strategic planning benefits, including performance. To provide empirical support to analyze the planning-performance, this research effort collected objective performance data that could be subjected to statistical testing, including average return-on-investment and revenue growth over a five-year period.

Three of the respondents could not, or would not, provide ROI financial data leaving a total of one hundred forty-two (142) respondents (37 non-planners and 105 planners) for testing the planning-performance relationship with regard to this financial variable.

The average annual ROI percentage for non-planners over the 1996-2000 fiscal period ranged from a negative -10% to a positive 52% return with a mean of 18.0%. Planners' average return-on investment ranged from a negative -10% to a positive 89% and had a mean over a third higher than non-planners at 24.3%.

Similar to previous research efforts, this study assumed a positive relationship between planning and financial performance as measured by ROI. The actual hypothesis is:

> H2b: *Large general contractors that practice strategic planning have performance, as measured by return on investment, superior to that of large general contractors that do not practice strategic planning.* SUPPORTED

A statistical analysis of planners vs. non-planners (t-test with a level of significance @ .05) provides support for this hypothesis – there is a statistically significant difference in performance between the two groups. (Table 8.4.2: *Planning – Performance Relationship (ROI) Test Statistics*). Even if the respondents that started strategic planning during the time period under study are excluded (17), statistical support is still provided for the hypothesis. The conclusion is that the hypothesis is supported – a positive relationship exists between planning and performance for building contractors. Contractors that develop strategic plans have superior financial performance (ROI) compared to contractors that do not develop strategic plans. In addition to a higher average return-on-investment, planners also have a significantly better ROI trend than non-planners.

Table 8.4.2
Planning – Performance Relationship (ROI) Test Statistics

	Non-Planners	Planners
Mean Return-on-Investment	18.03	24.29
Variance	168.02	234.43
Observations (n)	37	105
Hypothesized Mean Difference	0	
t Statistic	-2.4450	
t Critical one-tail	1.666	

The second performance measurement investigated in this study was the percentage of annual revenue growth. All respondents (145) averaged a compounded annual revenue growth rate of 15.3% over the five-year period (1996-2000). Non-planners had a mean annual revenue growth of 14.0% and the planners average was approximately ten percent higher at 15.6%.

This study assumed a positive relationship between planning and financial performance as measured by growth in annual revenue. The actual hypothesis is:

H2a: *Large general contractors that practice strategic planning have performance, as measured by revenue growth, superior to that of large general contractors that do not practice strategic planning.* REJECTED

A statistical comparison of planners vs. non-planners (t-test with a level of significance @ .05) provides no support for this hypothesis – there is no statistically significant difference in performance between the two groups (see Table 8.4.3 – *Planning – Performance Relationship % Growth Test Statistics).*

Table 8.4.3
Planning – Performance Relationship (% Growth) Test Statistics

	Non-Planners	Planners
Mean Annual Growth Rate	0.1403	0.1555
Variance	0.007632	0.009766
Observations (n)	37	105
Hypothesized Mean Difference	0	
t Statistic	-0.8807	
t Critical one-tail	1.666	

Recognizing that a firm's generic growth strategy would have some influence on the actual growth experienced by the firm, a second comparison was performed. In this test the firms in both groups that were pursuing a strategy of stability or retrenchment (no or minimal growth) were removed from the sample. As expected, the mean average growth for both planners and non-

planners was slightly higher at 16.1% and 15.4% respectively. However, the test results remained unchanged – there was still no statistically significant difference in performance between the two groups. Hypothesis 2a is rejected – there is no relationship between planning and performance as measured by percentage annual revenue growth.

8.5 FINDINGS AND ANALYSIS OF STRATEGIC PLANNERS

One hundred eight firms, or approximately three quarters of the respondents, had a strategic planning process with documented strategic plans. As tabulated in Table 8.5.1 – *Strategic Planning Practices*, some started as early as 1960 and several as late as 2001. For all planners the median starting year was 1991, with a mode of 1995, and a mean of 1990. The planning horizon ranged from 2 to 10 years with a median of 3, mode of 5, and a mean of 3.9 years. The updating frequency ranged from three months to four years with a mode of once per year and a mean updating frequency of every 15 months.

Table 8.5.1
Strategic Planning Practices

Strategic Planning Initiated	Calendar Year
Range	1960 to 2001
Median	1991
Mode	1995
Mean	1990
Planning Horizon (years)	Years
Range	2 to 10
Median	3
Mode	5
Mean	3.9

An examination of the 105 planners submitting financial data reveals a significant difference in the financial results of the firms developing strategic plans. The financial performance of the planners ranged from a negative (10%) to a positive 89% average return-on-investment and from a negative (6.9%) to a positive 43.1% compounded annual revenue growth over the five-year period of the study. Clearly, actual performance varied greatly over this period possibly in spite of, or because of differing approaches to the strategic planning process.

To evaluate the influence that a firm's planning process had on planning effectiveness and firm performance, a comparative analysis was performed involving the top performing and the poorest performing firms that developed strategic plans. The top 20% (best performers) and the bottom 20% (worst performers), 21 respondents in each group, were selected for comparison.

8.5.1 Performance Comparison Based Upon ROI

By definition the top performers had a higher average percent return-on-investment than the worst performing planners, but the two groups were still evaluated to determine if the differential in performance was statistically significant. The mean ROI over the five-year period for the poorest performers was 7.2%. This ROI was even worse than the average for the non-planners. In contrast, the mean ROI for the best performers was substantially higher at 46.7%. The two groups were subjected to a 'two sample, one tailed t-test', assuming unequal variances at a level of confidence of .05. The findings were that the best performers had a statistically significant better ROI than the worst performers.

There was also a marked differential in the trend of the ROI over the five-year period. Seventy-six percent (76%) of the top performers had moderate or strong growth and only two of the top performers had erratic growth. Only a third of the bottom 20% had moderate or strong return-on-investment trend, and six (28%) of the bottom 20% had erratic growth. The trend for the best performers averaged 'moderate growth' while worst performers had 'stable' or 'slow growth'. When subjected to statistical testing, the mean trend for top planners at 5.9 was significantly better than the bottom 20% at 4.6. The top performing planners not only had a substantially higher return-on-investment, but also had a better long-term trend for this measure of financial performance.

Moderating Variables

The planning-performance relationship was a focus of this investigation, but as noted in the preceding chapters there are a number of variables that can have significant influence on this relationship, including organizational size, geographical location, contracting method, and construction type. Additional moderating variables can include the age of the firm, the length of time the firm has been practicing strategic planning, and the horizon of the strategic planning effort (Steiner, 1979; Konchar and Sanvido, 1999; Brews and Hunt, 1999; Bonn and Christodoulou, 2000). Prior to evaluating any variances in the planning process, and any corresponding relationship to performance, the best performers and worst performers were analyzed to identify any significant differences between the two groups relative to the noted moderating variables. The planners were ranked by ROI performance and the top and bottom 20% were isolated for comparison.

The worst performers had a mean annual volume in fiscal 2000 of 177 million. This compared to a mean size of 301 million for the best performers. The differential in mean size would appear to be significant. However, because of the wide range in size (50m – 1.9 billion) and corresponding variance of the best performers, there was no statistically significant difference in size between

the two groups. Based upon a t-test using a level of significance of .05, a hypothesis suggesting a difference in size would have to be rejected. The same conclusion could be reached regarding firm age. The mean age of the best and worst performers was very similar, at 46 years and 49 years respectively, and there was no statistically significant difference between the two groups.

An examination of construction 'type' yielded similar results for the two groups. The mean percentage of annual revenue classified as 'general building' for the best performers was 85.5% compared to a mean of 88.2% for the worst performers. There was also similarity with regard to contracting method. Top performers, at 89%, had a slightly lower percentage of their annual volume performed at-risk than the worst performers at 93%. However, again there is no statistically significant difference between the two groups.

Table 8.5.2 – *Geographical Dispersion*, tabulates the regional location of the respondents in both groups under comparison. An examination of the regional dispersion highlights a higher representation from the SW and a lower representation from the W and FW for the best performers. However, both groups have representation from every region and there is a reasonable distribution of respondents.

An evaluation of the length of time each group has been developing strategic plans yielded very little difference between the best and worst performers. The best, on average, started developing strategic plans in 1990 and the worst started one year later with a mean of 1991 and again there was no statistically significant difference between the two groups. An analysis for planning horizon yielded similar results. The best had a mean of 4.3 years and the worst 4.0 years but once more there is no statistically significant difference between the best and worst performers.

Table 8.5.2
Geographical Dispersion of Best and Worst ROI Performers

Region	# of 'Worst' 20%	# of 'Best' 20%
NE	6	5
SE	5	6
SW	1	5
MW	3	2
W	2	1
FW	4	2
Total	21	21

Table 8.5.3 - *Moderating Variables of the Best and Worst Planners (ROI),* summarizes the comparison of the two groups of planners. This data supports the assertion that there is no significant difference between the best performers and the worst performers with regard to the

noted moderating variables of size, age, location, type, contracting method, length of time planning, or planning horizon.

Table 8.5.3
Moderating Variables of the Best and Worst Planners (ROI)

Moderating Variable	Top Performers	Bottom Performers	Significant Difference
Annual Volume – Mean	301m	117m	NO
Firm Age	46 yrs	49 yrs	NO
Construction 'Type'			
General Building	85.5%	88.2%	NO
At-Risk Contracting	89%	93%	NO
Strategic Planning Initiated	1990	1991	NO
Planning Horizon	4.3	4.0	NO

Environmental Perspective

Assuming there is a positive relationship between planning effectiveness and organizational performance, a logical hypothesis would be that top performers have a better understanding, and a different perspective, of their operating environment. To examine the relationship, an analysis was performed comparing the perspective ratings of the operating environment for both the top performers and the worst performers. To evaluate the relationship, t-tests (with a level of confidence @ .05) were conducted on each of the environmental variables and each firm's overall rating of the environment. The conclusion that can be supported is that there is no statistically significant difference in the environmental perspective between the best and worst performers. Both view the environment as having a 'mild' level of turbulence and instability.

Competitive Approach

The best and worst performers were evaluated with regard to their competitive approach. The majority of both the best and worst performers were organized using strategic business units (71% and 62% respectively). However, all of the best performers were pursuing a strategy of growth whereas almost a fifth (19%) of the worst performers are pursuing a no growth strategy of stability or retrenchment.

The competitive variables for the two groups were also comparatively analyzed. Both the top performers and the worst performers placed a high level of importance on delivery of a quality service/product, as well as differentiation and customization of service. However, difference levels of importance were placed on delivery time, cost competitiveness, and expansion of service and product offerings. The worst performers placed a higher level of importance on speed of

delivery and cost competitiveness, whereas the best performers noted product and service expansion, or growth variables, as more important. The worst performers were more prone to compete on price and time of delivery, whereas the best performing planners were more likely to compete based upon 'value'.

ROI Performance and Strategic Planning

A comparative analysis of strategic planners involving the constructs used to conceptualize strategic planning (flow, formality, comprehensiveness, participation, intensity, and integration) revealed some similarities with regard to *flow, formality, comprehensiveness*, and *participation* as well as some fundamental differences between the top ROI performers and the bottom 20% concerning *intensity* and plan *integration*.

The average mean planning *flow* for the top performers was 2.9, similar to the worst performers at 3.1. When statistical testing was conducted around a hypothesized mean of 4.0 (neither top-down or bottom-up planning approach) there was support for the assertion that the best and worst performing planners have a top-down approach to planning. Both groups, and planning respondents as a whole, have a planning approach where planning objectives are initiated at the highest level of the firm and the primary role of top management is to formulate rather than just endorse strategic plans. There was no statistically significant difference between the two groups with regard to planning *flow (*see Table 8.5.4 – *Planning Flow Test Statistics)*. When financial performance is measured by return-on-investment, the following hypothesis (H3a) is rejected:

H3a: *There is a positive relationship between planning flow (bottom-up) and financial performance as measured by return-on-investment.* REJECTED

Table 8.5.4
Planning Flow Test Statistics

	Bottom 20%	Top 20%
Planning Flow Mean Rating	3.060	2.929
Variance	0.6994	0.8821
Observations (n)	21	21
Hypothesized Mean Difference	0	
t Statistic	0.4772	
t Critical one-tail	1.6849	

An evaluation of the measurements for planning *formality* yielded similar results for both the best and worst performers (see Table 8.5.5 – *Planning Formality Test Statistics*). The overall mean (4.4) for the top planners was higher than the bottom 20% at 4.0, but statistically there was no difference between the two groups. Both groups do not have extensive written guidelines to

structure the planning process, but their mission, objectives, and action plans are formally documented. The only significant difference between the two is that the top performers had a more structured strategic planning process. However, overall there was no statistically significant difference in planning formality between the two groups. On that basis, the following hypothesis (H4a) is rejected:

H4a: *There is a positive relationship between increased planning formality and financial performance as measured by return-on-investment.* REJECTED

Table 8.5.5
Planning Formality Test Statistics

	Bottom 20%	Top 20%
Planning Formality Mean Rating	4.01	4.39
Variance	1.7092	1.7786
Observations (n)	21	21
Hypothesized Mean Difference	0	
t Statistic	-0.9348	
t Critical one-tail	1.6838	

A comparative analysis of planning *comprehensiveness* of the best and worst performers resulted in a slightly higher overall rating for top planners (see Table 8.5.6 – *Planning Comprehensiveness Test Statistics*). The best performers averaged 4.6 compared to the worst performers at 4.1, but again there was no statistically significant difference between the two groups. Both submit that they evaluate multiple courses of action prior to making a strategic decision and note that strategic initiatives are generally incremental adjustments of current organizational strategy. There was limited support (level of confidence at .10) for finding that the top performers performed a more extensive evaluation of organizational capabilities, strengths, and weaknesses, and more comprehensively tracked and evaluated their environment. However, overall there is no statistically significant difference between the two groups and therefore when financial performance is measured by return-on-investment, the following hypothesis (H5a) is rejected:

H5a: *There is a positive relationship between increased planning comprehensiveness and financial performance as measured by return-on-investment.* REJECTED

Table 8.5.6
Planning Comprehensiveness Test Statistics

	Bottom 20%	Top 20%
Planning Comprehensiveness Mean Rating	4.14	4.56
Variance	0.9425	0.7485
Observations (n)	21	21
Hypothesized Mean Difference	0	
t Statistic	-1.4823	
t Critical one-tail	1.6848	

The last similarity between the best and worst was with regard to planning *participation*. The mean (5.1) for the top planners was approximately the same as the bottom 20% at 4.7, and there was no statistically significant difference between the two (see Table 8.5.7 – *Planning Participation Test Statistics*). Both groups purport to have high participation in the planning process. They both express that top management is actively involved in the planning process, promotes the participation of functional managers, and supports extensive communication between planning participants during plan development. Based on this similarity, when financial performance is measured by return-on-investment, the following hypothesis (H6a) is rejected:

H6a*: There is a positive relationship between increased planning participation and financial performance as measured by return-on-investment.* REJECTED

Table 8.5.7
Planning Participation Test Statistics

	Bottom 20%	Top 20%
Planning Participation Mean Rating	4.68	5.06
Variance	2.1696	1.0932
Observations (n)	21	21
Hypothesized Mean Difference	0	
t Statistic	-0.9965	
t Critical one-tail	1.6883	

The best performing planners and the worst performers have similar planning process characteristics for *flow, formality, comprehensiveness*, and *participation*. These four (4) characteristics of a firm's planning process do not explain the difference in performance between the best and worst performing firms. However, significant differences do emerge upon the examination of planning *intensity* and *integration*.

While both groups considered their planning effort to be intense, the top performers have an overall intensity level greater than the worst performers (level of confidence of .10). An evaluation of the individual measurements for planning intensity revealed that both groups submit

that management frequently discusses and evaluates strategic issues, but in a relative sense, top performers devote more time and resources to the strategic planning effort. The management of top performers was more aggressively committed to the formulation and implementation of strategic plans. There was no significant difference in the planning horizon, but top planners updated their plans more frequently than the poorer performers. Only slightly more than half (57%) of the worst performers updated their strategic plan every year or less, and some updated as infrequently as every 3 years. Conversely, ninety percent (90%) of the top performers updated their plan at least yearly. See Table 8.5.8 – *Planning Intensity Test Statistics*, for the results of the statistical testing performed on this construct.

Table 8.5.8
Planning Intensity Test Statistics

	Bottom 20%	Top 20%
Overall Planning Intensity Mean Rating	5.14	5.45
Variance	0.5980	0.4726
Observations (n)	21	21
Hypothesized Mean Difference	0	
t Statistic	-1.3708	
t Critical one-tail (@ .10)	1.3036	
Management Commitment Mean Rating	5.14	5.81
Variance	1.9286	0.7619
Observations (n)	21	21
Hypothesized Mean Difference	0	
t Statistic	-1.8625	
t Critical one-tail (@ .05)	1.6909	

There were significant differences between the two groups regarding planning intensity. Therefore, when financial performance is measured by return-on-investment, the following hypothesis is supported:

H7a: *There is a positive relationship between increased planning intensity and financial performance as measured by return-on-investment.* SUPPORTED

The most statistically significant difference between the best performing planners and the worst performing planners was concerning plan *integration*. The mean overall rating of plan integration for the top planners was significantly higher than the bottom 20% indicating that the top performers more highly integrate their strategic plans into the operations of the firm. The strategic plans of top performers were more openly and actively communicated throughout the organization and strategic objectives had a more significant influence on project selection. Top performers were more likely to develop detailed action plans and allocate resources for the

organization's strategic objectives. The annual planning process of the top performers was more tightly integrated with the strategic plan and progress toward planning objectives was more frequently monitored. While both groups expressed that operational policies were comprehensively evaluated to ensure alignment with strategic objectives, the top planners more tightly linked management performance to attainment of strategic objectives.

There were significant differences between the two groups with regard to the overall (Table 8.5.9 – *Planning Integration Test Statistics*) and individual measurements of plan integration. Top performers had a higher degree of integration between daily operations and the organization's strategic plan(s). Therefore, when financial performance is measured by return-on-investment, the following hypothesis is supported:

H8a: *There is a positive relationship between increased plan integration and financial performance as measured by return-on-investment.* SUPPORTED

Table 8.5.9
Planning Integration Test Statistics

	Bottom 20%	Top 20%
Overall Planning Intensity Mean Rating	4.68	5.28
Variance	1.2790	0.5999
Observations (n)	21	21
Hypothesized Mean Difference	0	
t Statistic	-2.0099	
t Critical one-tail	1.6896	

8.5.2 Performance Comparison Based Upon Annual Growth

The relationship between the strategic planning process and performance, as measured by percentage growth in annual revenue over a five-year period, was investigated. The top 20% (best performers) and the bottom 20% (worst performers), 21 respondents in each group, were selected for comparison.

The actual percentage revenue growth over the five-year period varied significantly between the two groups. The average compounded annual growth over the five-year period for the bottom 20% ranged from a negative (6.9) percent to a positive 7.4% with a mean of 3.4%. Conversely, the growth rate of the top 20% ranged from 24.6% to 43.1% with a mean of 30.1% annually compounded growth in revenue. When the two groups were subjected to a statistical t-test, the

finding was that the top performers (as measured by revenue growth) have significantly higher annual compounded growth than the worst performers.

Moderating Variables

Similar to the preceding comparison utilizing return-on-investment as the performance measurement, the moderating variables that may influence the relationship between strategic planning and annual revenue growth were examined. The best and worst performers relative to revenue growth were comparatively analyzed with regard to firm size, geographical dispersion, construction type, contracting method, firm age, planning horizon, and the date of strategic planning initiation.

The mean annual volume of the top performers was 393 million versus a mean of 231 million for the worst performers. However, since the range (77m to 1.9b), and corresponding variance, of the top performers was so large there was no statistically significant size differential between the two groups.

The geographical dispersion of the best and worst performers is tabulated in Table 8.5.10. While the best performers had a higher representation of firms from the 'East' and the worst a higher representation of the 'West', the geographical dispersion of the two groups had a reasonable distribution.

Table 8.5.10
Geographical Dispersion of Best and Worst Growth Performers

Region	# of 'Best' 20%	# of 'Worst' 20%
NE	5	3
SE	8	4
SW	0	2
MW	2	4
W	2	4
FW	4	4
Total	21	21

An examination of construction 'type' of both groups revealed that eighty-eight percent (88%) of the worst performers annual revenue was classified as 'general building', which was similar to the best performers at ninety percent (91%). In addition, the planning horizon, at slightly less than four years, was essentially the same.

However, there was a statistically significant difference with regard to contracting method, firm age, and the year strategic planning was initiated. The worst performed more work 'at risk' (95% versus 88%) and were older with a mean age of 61 years versus 42 years for the best. Lastly, the worst performers started developing strategic plans sooner than the best performers (means of 1988 versus 1992 respectively). However, both the firm age and planning initiation period would appear sufficient to develop a proficiency in strategic planning.

As summarized in Table 8.5.11 - *Moderating Variables of the Best and Worst Planners (Revenue Growth),* firm size, percentage of work as general building, and strategic planning horizon are similar for both the best and worst performing firms. However, the poorer performing firms were older and started developing strategic plans at an earlier date. They also had a higher percentage of work contracted at risk.

Table 8.5.11
Moderating Variables of the Best and Worst Planners (Revenue Growth)

Moderating Variable	Top Performers	Bottom Performers	Significant Difference
Annual Volume – Mean	391m	231m	NO
Firm Age	42 yrs	61 yrs	YES
Construction 'Type'			
General Building	91%	88%	NO
At-Risk Contracting	88%	95%	YES
Strategic Planning Initiated	1992	1988	YES
Planning Horizon	3.9	3.9	NO

Environment Perspective and Competitive Approach

The mean overall ratings of the environmental variables suggested that the top revenue growth performers viewed the environment as slightly more stable that the worst performers. However, there was no statistically significant difference in the overall rating between the two groups. The only significant difference was that the top performers felt that it was easier for them to differentiate their product and/or service.

The preceding difference between the worst and best performers was also manifested in the competitive approach used by the two groups. The top performers were more likely to compete by differentiating their product/service and the worst performers were more focused on price and their ability to improve their cost competitiveness.

Annual Revenue Growth and Strategic Planning

Similar to the comparison involving the best and worst ROI performers, the firms with the best annual revenue growth were comparatively analyzed against those firms that had the worst percentage growth. The findings were that there was no statistically significant difference in the average rating for planning *flow, formality, intensity, comprehensiveness, participation,* or plan *integration* between the top 20% and bottom 20%. Likewise, there was no statistically significant difference in the responses to any of the individual measurements. Both groups purport to have a top-down planning flow, a comprehensive approach to planning, and a high level of participation in the planning effort. They considered their planning effort as neither formal nor informal, both claimed to be committed to the planning effort, and both had similar levels of strategic plan integration.

There was limited support for the hypothesis that firms with a high revenue growth rate also have a stronger ROI trend (with a level of confidence of .10). However, this finding would be based upon a subjective rating by the respondents and may not correspond to an empirical analysis of these variables.

In summary, based upon statistical testing of the measurement variables, none of the following hypotheses were supported:

H3b: *There is a positive relationship between planning flow (bottom-up) and performance as measured by percentage growth in annual revenue.* REJECTED

H4b: *There is a positive relationship between increased planning formality and performance as measured by percentage growth in annual revenue.* REJECTED

H5b: *There is a positive relationship between increased planning comprehensiveness and performance as measured by percentage growth in annual revenue.* REJECTED

H6b: *There is a positive relationship between increased planning participation and performance as measured by percentage growth in annual revenue.* REJECTED

H7b: *There is a positive relationship between increased planning intensity and performance as measured by percentage growth in annual revenue.* REJECTED

H8b: *There is a positive relationship between increased plan integration and performance as measured by percentage growth in annual revenue.* REJECTED

Based upon the preceding statistical testing, there is no relationship between planning *flow, formality, comprehensiveness, participation, intensity,* and *integration* and performance, as measured by percentage growth in annual revenue (Table 8.5.12: *Annual Growth – Planning Construct Test Statistics*). The findings would support the assertion that annual percentage revenue growth is not a discriminating attribute. It is a poor performance measurement to discern a relationship between a firm's approach to strategic planning and performance.

Table 8.5.12
Annual Growth – Planning Construct Test Statistics
N=21, Hypothesized Mean Difference = 0, *t* Critical = 1.68

	Bottom 20%	Top 20%
Planning Flow Mean	3.07	3.31
Variance	1.2790	0.5999
t Statistic	-0.8352	
Planning Comprehensiveness Mean	4.26	4.44
Variance	0.7294	0.4930
t Statistic	-0.7237	
Planning Participation Mean	4.82	5.01
Variance	1.7696	1.5029
t Statistic	-0.4825	
Planning Formality Mean	4.60	4.14
Variance	1.9530	1.0286
t Statistic	1.2006	
Planning Intensity Mean	5.33	5.21
Variance	0.6389	0.5421
t Statistic	0.5020	
Planning Integration Mean	4.76	4.90
Variance	0.9757	1.0291
t Statistic	-0.4624	

Evaluating the return-on-investment of those with the highest and lowest percentage revenue growth adds additional insight. The ROI of those with the lowest growth rate was 18.5%, very similar to the group with the highest growth rate at 20.2%. Statistical testing reveals that there is no significant difference in ROI between the two. However, only one (1) of the top ROI performers was also in the group with the highest growth and 13, or 65%, of the group with the highest growth had ROI performance below the mean of all planners. Statistical testing of the relationship between return-on-investment and growth rate supports the proposition that there is no correlation between revenue growth and ROI. High growth does not equal high return-on-investment. In fact, it may be more difficult to attain high profitability (ROI) if strong growth is an organization's primary objective.

8.5.3 Planning Effectiveness

Performance was also evaluated based upon *planning effectiveness*. Measurements for *planning effectiveness* assess the 'contribution' that strategic planning provides the organization through improved situation analysis and understanding, and 'improvement' in organizational capabilities resulting from an increased understanding and knowledge facilitated by the planning effort. The expectation would be that the top planners have a more effective planning effort than the worst performers. A comparative analysis of the best and worst performers, as measured by ROI provides limited support for this assertion.

The mean rating for overall organizational 'contribution' of the planning effort was higher for the top performing planners (see Table 8.5.13: *Planning Effectiveness – Performance Test Statistics*). While both groups submit that planning made an overall contribution to the organization, statistical testing provided support for the assertion that top performers believe strategic planning contributed more toward organizational capabilities than the lowest performers. Similar to the conclusion reached with hypothesis H2a, both submit that strategic planning improved financial performance. In addition, both groups of planners also believed that strategic planning improved their ability to identify new strategic options. However, top performers submitted that strategic planning more significantly enhanced the firm's strategic vision and facilitated a significantly enhanced ability to define and improve their competitive advantage. In summary, there is support for the assertion that top performers have a planning process that is perceived to provide a more effective contribution to the organization (Table 8.5.13).

Table 8.5.13
Planning Effectiveness – Performance Test Statistics
N=21, Hypothesized Mean Difference = 0, *t* Critical = 1.69

	Bottom 20%	Top 20%
Planning Contribution Mean	5.37	5.79
Variance	0.7971	0.3059
t Statistic	-1.8284	
Planning Learning Mean	5.51	5.59
Variance	0.8985	0.3184
t Statistic	-0.3297	

An examination of the impact that strategic planning had on organizational capabilities revealed similarity between the best and worst performers. The mean overall rating was 5.5 for the worst and 5.6 for the top performers and there was no significant difference between the two groups (Table 8.5.13). Both the top performers and the worst performers believed that strategic planning significantly improved the firm's understanding of its environment, enhanced organizational cooperation toward strategic objectives, and improved their understanding of the organization's capabilities. The best and worst performers submitted that strategic planning facilitated an

improved understanding of their 'business', enhanced the ability to identify weaknesses or problem areas, and improved the firm's understanding of its competitive environment.

Based upon the preceding comparative analysis involving the organizational 'contribution' and 'improvement' of strategic planning, there is limited support for the following hypothesis:

H1: *There is a positive relationship between planning effectiveness and organizational performance.* SUPPORTED

Firms that perceive their planning process as facilitating organizational improvement and providing a contribution to the firm's success have improved results – i.e. perceived effectiveness is associated with better performance.

8.6 FIRM SIZE AND PLANNING APPROACH

A comparison of the largest planners (top 20%) and the smallest planners (bottom 20%) revealed areas of similarity between the two groups. Over the five-year period there was no statistically significant difference in the average percentage return-on-investment, ROI trend, or percentage annual revenue growth. The two groups had a similar percentage of their annual volume in general building and percentage of work at risk. In addition, they had essentially the same perspective of their operating environment.

The only difference in their competitive approach was that smaller firms view the ability to compete on price as more important. Their growth strategy varied from 100% of the large firms pursuing a growth strategy compared to only 86% of the small firms seeking growth. Understandably, the larger firms are more likely to be organized with multiple SBU's and were significantly older (mean age of 66 years for large firms 41 years for small firms). However, both the largest and the smallest planners started developing strategic plans at approximately the same time (1989 and 1988 respectively), and they had an identical mean planning horizon of 3.6 years. Large and small firms had a great deal of similarity with regard to performance, environmental perspective, competitive strategy, planning experience, and planning horizon. The only distinguishing factors were firm age and growth strategy.

A comparative analysis of largest and smallest strategic planners involving the constructs used to conceptualize strategic planning (*flow, formality, comprehensiveness, participation, intensity, and integration*) revealed some similarities as well as several fundamental differences between the two groups with regard to their approach to strategic planning.

Both large and small planners had a 'top-down' approach to strategic planning with top management taking a primary role in the development of strategic plans. The two groups were also similar with regard to planning participation. Even though top management takes a primary role in plan development, both groups involved participants from multiple levels of the organization and supported extensive communication among planning participants. However, with regard to planning *formality, comprehensiveness, intensity, and integration* the largest and the smallest planners of the sample had statistically significant differences.

Planning *formality* was found to have a relationship to organizational size. Larger firms were more likely to have a formal submission process for corporate review and approval as well as more likely to have formally documented mission, objectives, and corresponding action plans. Larger firms were more prone to have a formally documented planning process and written guidelines to structure the planning process. In summary, statistical testing supports the assertion that the degree of planning *formality* is closely associated with firm size – larger firms have a more formal planning process.

Planning *intensity* had a relationship with firm size – management of the larger firms had a higher degree of commitment to the formulation and implementation of the strategic plan(s). Larger firms had more frequent discussion and evaluation of strategic issues and in a relative sense, devoted more resources to the planning effort. With larger firms, corporate management was more actively involved in the planning and implementation effort. Statistical testing supports the proposition that there is a relationship between planning intensity and firm size – larger firms have a higher level of planning intensity.

Larger firms also had a higher degree of plan *integration*. Strategic plans were more openly and actively communicated. Strategic objectives were more likely to influence project selection. Detailed action plans were more likely to be prepared and the annual business plan was more tightly integrated with the firm's strategic objectives. Larger firms had tighter linkage between management performance evaluation and strategic objectives, and more frequently monitored progress toward the organization's strategic objectives. Statistical testing supports the assertion that there is a relationship between plan integration and firm size – larger firms more highly integrate, or institutionalize, their strategic plan(s).

Lastly, larger firms tended to have a more *comprehensive* planning effort. Larger firms performed a more extensive evaluation of current organizational capacities, strengths, and weaknesses. They had a more comprehensive process to track and evaluate their operating environment. Large firms also had a process that facilitated a more exhaustive generation and evaluation of the strategic

options available to the firm. Again, statistical testing supports the assertion that there is a relationship between planning comprehensiveness and firm size – larger firms develop more comprehensive strategic plans.

8.7 PERCEPTION vs. ACTUAL PERFORMANCE

The survey questionnaire had a section on performance where the respondents were asked to rate their revenue growth, return-on-investment, and overall firm performance relative to their competitors. There were five rating options available to the respondents, ranging from the top 20% to the lowest 20% in twenty percent intervals. These 'subjective' ratings by the respondents of their firm's performance were then compared to the actual performance of the organization over the five-year period.

An examination of the ratings on annual revenue growth reveals that only sixteen, or 11% of all respondents (both planners and non-planners) and only 10% of the strategic planners underrated their performance concerning annual revenue growth relative to their competitors. In total, three out of five (60%) of all the respondents overrated their performance by a full rating category (placed their firm in a higher 20% bracket). Non-planners were more optimistic than strategic planners concerning their performance. Seventy-three percent (73%) of the non-planners overrated their performance and fifty-two percent (52%) of those firms that developed strategic plans overrated their performance. In addition, lower performers had a stronger tendency than high performers to overrate their performance. As an example, over ninety percent (90%) of the poorest performing planners overrated their actual revenue growth performance. Statistical testing around a hypothesized mean of zero (contractors properly rate their performance) supports the assertions that contractors tend to 'overrate' their annual revenue growth performance. Contractors (both planners and non-planners) perceive that their revenue growth performance, relative to their competitors, was better than it actually was.

An evaluation of the respondent ratings relative to return-on-investment yielded similar results. Only eleven, or 7.7%%, of all respondents underrated their performance, whereas more than three out of five (63%) of the respondents overrated their ROI performance relative to their competitors. Again, non-planners tended to have a more optimistic view of their performance than planners. Sixty-two percent (62%) of the non-planners overrated their performance whereas only thirty-eight percent (38%) of the planners overrated their performance. Similar to the findings concerning revenue growth, lower performers had a stronger tendency than high performers to overrate their performance. One hundred percent (100%) of the poorest performing planners overrated their actual return-on-investment performance. Statistical testing around a hypothesized

mean of zero (contractors properly rate their performance) supports the assertions that contractors tend to 'overrate' their actual return-on-investment performance. Contractors (both planners and non-planners) perceived their relative return-on-investment performance as better than the empirical data supports.

The overall firm performance rating is a summation of the ratings for revenue growth and return on investment. As expected, the results are similar to the preceding analyses. More than three out of five (63%) respondents overrated their performance by one or more ranking (placed themselves in a higher 20% bracket). Again, lower performers had a stronger tendency than high performers to overrate their performance (all but two of the bottom 20% overrated their performance). Statistical testing around a hypothesized mean of zero (contractors properly rate their performance) supports the assertions that contractors tend to 'overrate' their actual overall firm performance. Contractors (both planners and non-planners) perceive that their overall firm performance, relative to their competitors, is better than the empirical data supports.

Contractors tend to have an optimistic view of their performance. They perceive their annual revenue growth, return-on-investment, and overall performance as significantly better than their own empirical data would support.

8.8 SUMMARY

Table 8.8.1 – *Summary of Primary Findings*, tabulates the primary findings from respondents to the self-administered survey. As evidenced by this tabulation, while similarities exist there are significant distinctions between those firms that develop strategic plans (planners) and those that don't develop strategic plans (non-planners). Firms that develop strategic plans have a higher level of financial performance.

There is also a positive relationship between some of the constructs used to define the strategic planning process and organizational performance. Lastly, the data supports a relationship between organizational size and a firm's approach to the strategic planning process.

Table 8.8.1
Summary of Primary Findings

Relationship	Finding	Remarks
Strategy & Performance		
Revenue growth and growth strategy	Supported	Firms with a generic strategy of growth have a significantly higher growth rate.
Strategic planning and competitive approach	Supported	Strategic planners are less likely to pursue a competitive strategy based on low price.
SBU organization and ROI performance	Not Supported	Firms organized as SBU's do not have a significantly higher ROI.
SBU organization and firm size	Supported	Larger firms are more likely to be organized with multiple SBU's.
Firm size and development of a strategic plan	Supported	Larger firms are more likely to develop strategic plans.
Planning and Performance		
Planning and ROI performance	Supported	Planners have a higher ROI.
Planning and growth performance	Not Supported	Planners do not have a higher rate of growth.
Planning *Flow*		
Flow and performance	Not Supported	Planners typically have a top-down approach.
Flow and firm size	Not Supported	Regardless of firm size, planners typically have a top-down approach.
Planning *Formality*		
Formality and performance	Not Supported	No statistically significant relationship for ROI or rate of revenue growth.
Formality and firm size	Supported	Larger firms have a more formal planning process.
Planning *Participation*		
Participation and performance	Not Supported	No statistically significant relationship for ROI or rate of revenue growth.
Participation and firm size	Not Supported	Planners typically involve multiple participants in the planning process.
Planning *Comprehensiveness*		
Comprehensiveness & performance	Not Supported	No statistically significant relationship for ROI or rate of revenue growth.
Comprehensiveness and size	Supported	Larger firms have more a comprehensive planning process.
Planning *Intensity*		
Intensity and ROI performance	Supported	Top performers have a higher level of intensity.
Intensity and growth performance	Not Supported	No statistically significant relationship.
Intensity and firm size	Supported	Larger firms are more committed to the planning process.
Planning *Integration*		
Integration and ROI performance	Supported	Top performers have a higher level of plan integration.
Integration and growth performance	Not Supported	No statistically significant relationship.
Integration and firm size	Supported	Larger firms have a higher level of plan integration.
Planning *Effectiveness*		
Planning effectiveness & firm performance	Supported	Firms that perceive their planning process as more effective have better performance.
Perceived vs Actual		
Perceived performance and actual performance	Not Supported	Firms tend to overrate their performance.

Chapter Nine addresses the final 'phase' of this study. It reviews the sample selection process and interview methodology adopted for the personal interviews with the best performers. The findings from the interviews with the 'leadership' of each of the firms are presented and a listing of 'best practices' and a planning model are developed.

CHAPTER NINE:

STRATEGIC PLANNING BEST PRACTICES

9.1 INTRODUCTION

The self-administered survey that was utilized provided information on strategy and strategic planning from a broad sampling of the population. It supplied data to test the hypotheses and provide support for the conclusions presented in the previous chapter. The data supports the existence of a positive relationship between planning and performance – that strategic planning does improve financial results. The survey data also provided insight into the planning processes of the respondents. However, the technique used (self-administered survey) limits the *depth* of understanding that can be derived using this methodology.

Therefore, to facilitate a better understanding of the strategy development and implementation process of the best performing 'planners', personal interviews were incorporated into the research design. The objective was to identify the practices of the top performing firms with an ultimate goal of developing a list of 'best practices' for strategy selection, plan development, and implementation.

9.2 METHODOLOGY

To accomplish the research objective of a 'best practices' listing, it would be necessary to involve the top performing general contractors – the general builders that had the highest average return-on-investment over the five-year period. To achieve that end, it was necessary to identify the 'best' and then motivate a sufficient number of them to participate in the interview process. The identification of the best performers was facilitated by the quantitative data received from the respondents to the self-administered survey. Motivating respondents to participate in the personal interview process was the next challenge.

9.2.1 Candidate Identification and Solicitation

The best performing planners, as measured by return-on-investment (ROI), were identified from responses to the initial survey. The top thirty-seven (37), of the one hundred eight planners, were selected to participate in the interview process. Thirty-seven firms were identified as candidates because: 1) all these firms had an ROI in the top third of all planners, and 2) the pool of

candidates needed to be large enough to ensure an adequate number of actual participants. To encourage the best performers to participate in the interview process the respondents were first provided feedback on the survey that they had completed several months earlier. Each of the candidates was provided a summary of the survey findings, as well as a comparative analysis of their firm. This information was sent directly to the President/CEO several weeks prior to being asked to participate in the interview process.

Selection of elite participants presented access challenges. These organizational leaders have a multitude of responsibilities, often spend a great deal of time traveling, and typically have full schedules. An initial request was made via personalized letter to the President/CEO of the firm (Appendix F). Candidates were thanked for their participation in the initial phase of the study and requested to commit to a personal interview to discuss their strategic planning process. The goals of the interview process were presented and they were offered a summary of the findings from this phase of the research should they elect to participate. They were advised that the interview would take 45-60 minutes and were assured of the confidentiality of their input. Subsequent to receipt of the letter the company officers were contacted by phone to arrange an interview time. In several cases, as many as four (4) follow-up phone calls were made to obtain commitment from the firm.

9.2.2 Interview Sample

Of the thirty-seven (37) firms contacted, twenty-six initially agreed to participate. Upon conclusion of the interview process, twenty-five (25) firms, or 69% of the firms contacted actually did participate in this phase of the study. The group of participants included over two-thirds of the identifiable firms in the top twenty percent of the 108 planners participating in the initial phase. Considering the commitment of time required from the company officer (approximately one hour) this was a remarkable participation rate that favorably influences the validity and reliability of this research phase, and is indicative of these leaders' commitment to strategic planning.

To enhance the 'quality' of the findings the research design recognized a need to solicit input from an 'elite' member of the organization (Marshall et. al., 1989). Information was sought from individuals that had organizational knowledge and planning expertise and involvement – the president/CEO and/or senior management. These individuals would be more likely to have a better understanding of the organization's process, have keener knowledge of the firm's strategy and its linkage with policy and programs, and would have a high likelihood of been intimately involved in plan implementation. This in turn would elevate the 'quality' of the data and the validity and reliability of any findings (Gummesson, 2000).

The interviewee was the president or chairman of the company in twenty-one (84%) of the twenty-five participating firms. A senior manager who was intimately involved in the firm's strategy development and implementation process was the interviewee for the other four firms. Each of the six regions of the country was represented. On average, the firms had been practicing strategic planning for 10 years and the mean annual revenue of the participants was 267 million.

9.2.3 Personal Interview Process

Prior to the interview each participant was provided a copy of the general topics and questions to be discussed during the interview (Appendix E). This outline was developed to supplement the information previously provided by each respondent via the self-administered survey. The discussion topics were chosen to provide additional insight into the firm's background (general history of the company, ownership, organizational structure), market focus and generic strategy, their strategic plan development and implementation process, and the influence of strategic planning on organizational success.

Over a six-week period interviews were conducted with each of the participants. To accommodate the geographical dispersion of the firms and reduce situational bias and interviewer intrusion, the personal interviews were conducted over the phone at a time convenient for the respondent. The participants were given latitude to respond to the questions as they deemed appropriate, but the agenda for the interview (Appendix E) was relatively structured and consistent throughout the process. The interviews ranged from fifty minutes to one and one-half hours long, with an average of approximately one hour. During the interview copious notes were taken, or if consent was provided the interview was taped. Immediately after the interview the respondent's comments were summarized and recorded.

9.2.4 Recording , Analysis, and Categorization

The research strategy could be classified as 'accurate description' (Strauss and Corbin, 1990) or 'descriptive' qualitative research (Cooper and Schindler, 1998). The object of this phase of the study was to develop a descriptive summary of the categories and corresponding 'themes or patterns' of the participants' strategic planning process. The challenges with interviews soliciting 'open end' responses include the proper recording, labeling, interpretation, and categorization of respondent data to facilitate a descriptive summary – a listing of 'best practices' (Cooper and Schindler, 1998).

The interviews were structured to facilitate 'purposeful conversation' (Marshall and Rossman, 1989). The participants were provided a listing of 'general' topics of interest relating to strategy and strategic planning, but were given the latitude to convey their perspective on issues they deemed important to the planning process. The research was designed to obtain input from the participants in their 'natural setting'. To enhance validity and reliability the interview was approached as an iterative process where the participants were asked questions to clarify input and probe the concepts being discussed. To ensure accurate and comprehensive 'capture' of the participant's input, and reduce recording error, notes were taken and the interview was taped when permission was received. Subsequent to each interview the participant's comments were summarized and recorded for future analysis.

To facilitate participation, and enhance the validity of respondent input, interview participants were assured of confidentiality beginning with the initial solicitation. Prior to the start of the interview, many of the participants requested reassurance that their comments would remain confidential. To maintain the required level of trust and protect the confidentiality of the respondents, their input was has been 'reduced' and summarized to disguise the source and their precise commentary has not been quoted in the text of the findings.

Data analysis adhered to the guidelines suggested by Strauss and Corbin (1990), Marshall and Rossman (1989), and Gummesson (2000). The ultimate objective of the data analysis process was the generation of categories, themes, and/or patterns that link the participants and their corresponding organizations together. The goal was to identify categories that were internally consistent, but distinct from one another (internal congruence and external divergence). The process was not one of "searching for the exhaustive and mutually exclusive categories of the statistician, but instead to identify the salient, grounded categories of meaning held by participants" (Marshall et. al., 1989:116). In addition, Gummesson, (2000) and Strausss and Corbin (1989) submit that the quality and credibility of a qualitative analysis is influenced by the degree of participant and researcher understanding and insight. The use of 'elite' participants that were involved in the initial survey combined with the researcher's extensive background in the actual development and implementation of strategic plans favorably influences the validity of the data collection process and its analysis.

Data analysis required a conceptualization and open coding of the data – a "process of breaking down, examining, comparing, conceptualizing, and categorizing data" (Strauss and Corbin, 1990:61). The initial step required an evaluation of the data to facilitate conceptualization of the participants' statements, and the development of a labeling (coding) system to organize the phenomenon. During this 'open coding' process each participant's individual perceptions and

opinions were evaluated 'line-by line' and similar statements and/or concepts were combined and grouped. The actual labels/groupings utilized to organize the data are tabulated in Table 9.2.1 – *Coding Labels / Groupings*.

Table 9.2.1
Coding Labels / Groupings

Data Labels / Groupings

Planning format	Planning timing
Generic strategy	Planning structure and guidelines
Organization mission	Mission strength
Internal assessment	External Assessment
Strategic objectives	Strategy selection responsibility
Strategic approach	Planning improvements
Action plan development	Action orientation
Plan communication	Management commitment
Plan influence	Organizational participation
Monitoring/updating	Planning success defined
Plan linkage with success	Planning contribution
Important development elements	Important implementation elements
Planning benefits	Planning participation

The next step in the analysis was the development of categories and the associated sub-categories linked to each category. This entailed an analytical process involving both open and axial coding – a process where data is brought back together "by making connections between a category and its subcategories" (Strauss and Corbin, 1999:97). Each selected category (and sub-category) possesses attributes or characteristics (properties) and 'dimensional range'. For example, the selected category of 'participation' has properties such as quantity, diversification, and timing with corresponding dimensional ranges of a low to high number of participants, a wide to narrow range of functional disciplines, and pre-planning to post-planning participation.

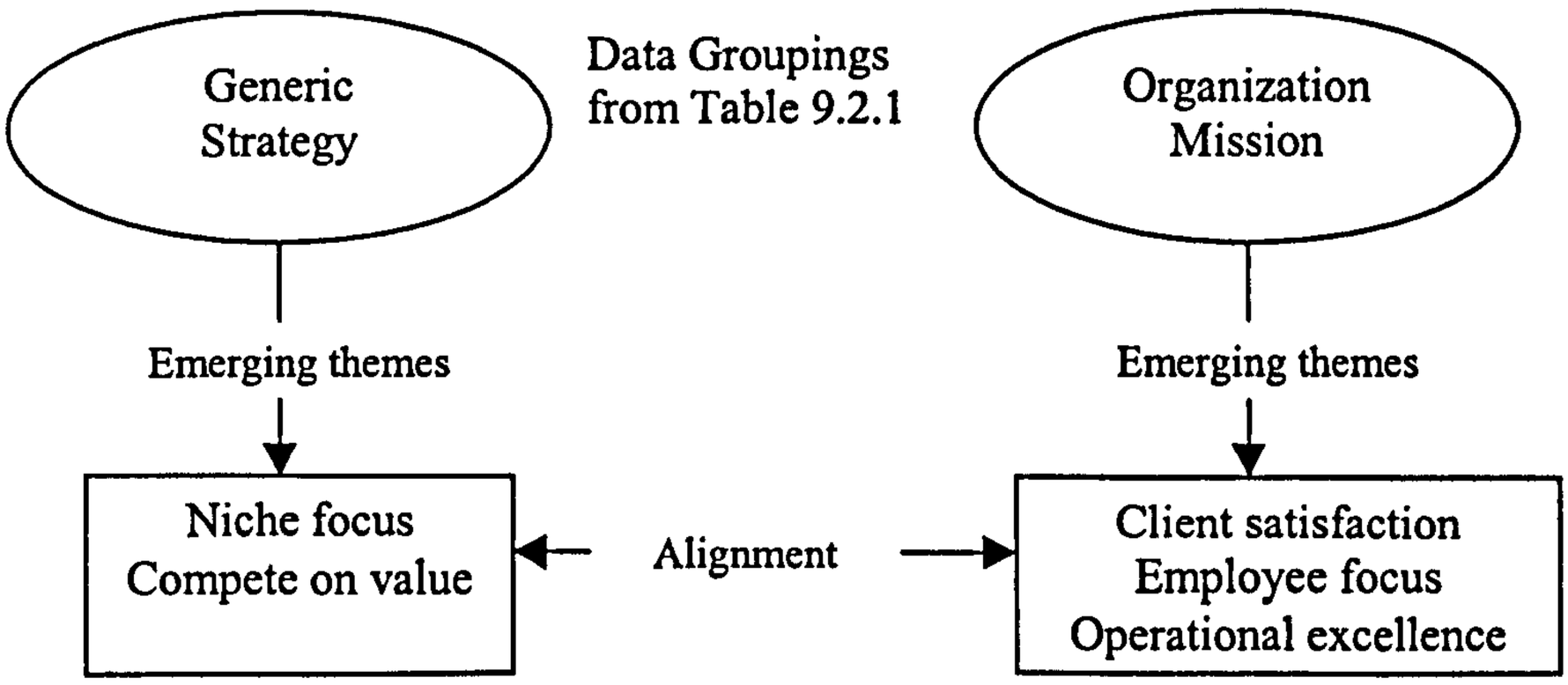
The development of the categories, and associated sub-categories, with 'dimensionalized properties' evolved as the data was evaluated. The coded data was evaluated and analyzed to identify the patterns, or themes, associated with each. The final selection of 'categories' included generic strategy and planning format in addition to the constructs used to conceptualize the strategic planning process in the initial phase of his study – flow, formality, comprehensiveness, participation, intensity, and integration. While generic strategy was not an initial focus of this study, it became apparent during the interview process that the participants (the best performers) had similar generic strategic intent. The strength and consistency of this association led to the selection and presentation of a 'generic strategy' category.

The categories, and subcategories (themes and patterns) found to be associated with each of the categories, are presented in the following sections of this chapter. While participant consensus on any one category or subcategory was rare, there was an amazing degree of similarity among the organizational leaders. Participant opinions, beliefs, strategy, and planning approach were very similar and in some cases approached consensus. The findings and associations are enumerated in this chapter and are summarized in Tables 9.5.1 and 9.5.2. Conceptually, they represent the strategic planning practices of the top performers – the strategic planning 'best practices'.

9.3 COMPETITIVE STRATEGY

To mitigate the influence of variables known to moderate the planning-performance relationship, the study population was restricted. Only firms that had made similar 'strategic choices' regarding type of work (category), company size, operating geography, and contracting method were included in the study. A firm's conformance with these variables (strategic choices) was confirmed with the survey instrument and reaffirmed during the interview process. Strategic choices beyond these variables were not a limiting factor for participation, or of significant interest to this research effort. However, participants were asked on the survey and again during the interview process to provide limited 'background' information concerning their competitive strategy. Data from the self-administered survey revealed a limited degree of similarity in the strategic approach of the top performers. However, during the in-depth discussions with the company leaders it became apparent this similarity had a broader base. The 'generic' competitive strategy and mission of the best performing firms have a great deal of 'common' ground.

Figure 9.3.1
Competitive Strategy Themes



The emerging themes in the data groupings of 'generic strategy' and 'organization mission' are depicted in Figure 9.3.1 – *Competitive Strategy Themes*. Respondents had near consensus on their approach to customer satisfaction and employee fulfillment. In addition, they had a near unanimous opinion concerning operational excellence, niche focus, competitive approach, and mission-strategy alignment. The following paragraphs summarize the respondents' input.

9.3.1 Generic Strategy of Differentiation and Niche Focus

All of the respondents (100%) noted that their organization was operating in a limited number of market niches and pursuing a generic strategy of 'differentiation' – Porter's (1985) generic strategy of 'focus'. They limited their market niche(s) not only by project category (healthcare, retail, office, etc.), but also by sub-category, contracting method, geography, and often by client. They expressed that differentiation was a difficult, but an achievable and vital task in a competitive industry. Most all view exceptional customer service supported by niche 'expertise' as necessary prerequisites to accomplish that objective. They submit that a firm must focus on a limited number of niches and attain a level of expertise in each to be successful. This supposition is supported by many industry scholars including Cough and Sears (1994), Eaton (1999), Male and Stocks (1991), and Ngowi et al., (2000). To develop and refine niche expertise the best performers are typically organized as operating groups, or strategic business units, supporting narrow market niches and/or a select client base.

9.3.2 Compete Based Upon Value

The best performers view their operating environment as extremely competitive with price often given a substantial weighting in the selection of a contracting entity. Therefore they recognize that they must deliver a competitive service, but they seek opportunities to compete based upon 'value', rather than solely based upon price. (This approach is also supported by the empirical data from the survey.) The top performers seek to be the 'builder of choice' for their customers – selected for the quality of service they can provide. They recognize that to successfully compete on 'value', they must: 1) be able to identify clients that select builders based upon 'value', 2) actively pursue those clients, and 3) be capable of actually delivering perceived 'value' to the customer. To that end, clients and projects are selected with care to ensure that they meet the capabilities and long-term objectives of the firm. They seek opportunities where contractor selection is based upon expertise and the value that the firm can bring to the owner's development and construction program. Customers that have a continuing building program are preferred – those clients that offer an opportunity for repeat business. The best performers view long-term

relationships with repeat clients as an avenue to improved fees and contractual conditions, lower risk, enhanced industry relationships, and improved financial performance.

9.3.3 Commitment to Client Satisfaction

The best performers view profitability as the most important indicator, but believe that it flows from customer satisfaction. Universally, the top performers have a generic strategy that is focused on the delivery of exceptional service exceeding client expectations (external customers) while providing an environment facilitating the development and fulfillment of their employees (internal customers).

In an effort to elevate their firm above commodity status, they seek to differentiate their organization through a relentless focus on customer satisfaction. They seek not only to meet customer expectations, but exceed them – to delight the customer. They strive to '<u>amaze</u>' their clients - make the process as pleasant as possible. They will sacrifice short-term profitability for customer satisfaction. From the project management team constructing the facility to the accounting department processing payments, top performers seek to align the activities of their functional departments and management teams with the customer's needs and expectations. They work to be viewed as an extension of the customer's organization – a valued member of the owner's team. In an effort to intensify their client relationships they often expand their spectrum of services along the owner's project development 'value chain'.

9.3.4 Commitment to Employee Development and Fulfillment

The best performing firms also create an environment facilitating employee development and fulfillment. Leadership believes that the only truly distinctive asset of the firm is their employees and the knowledge they possess. Similar to the approach presented by Collin (2001) in his book "*Good to Great: Why Some Companies Make the Leap... and Others Don't*", the best seek the 'right' people. To be the best, they know that they must identify, attract, retain, and develop the best talent. As a result, senior management spends a great deal of time locating and recruiting the best employees for the firm. Once a member of the organization, employees are purposely involved in key operational issues, party to significant company decisions, and regularly informed concerning company performance and organizational developments. They take these steps to enhance employee commitment and promote a feeling of belonging. Often key employees are provided an opportunity to 'earn' an ownership position in the firm. Leadership strives to create an 'open' environment that is sensitive to the needs of the employees, yet dynamic enough to facilitate organizational growth and 'stretch' employee development.

9.3.5 Continuously Striving for Operational Excellence

The top performers recognize that even clients selecting contracting firms based on 'value' still demand a competitive service. As a result, they are continuously exploring ways to reduce cost and improve service – to create enhanced value for the customer. They relentlessly pursue improvements in operational efficiency and reduction in both direct and indirect (overhead) costs. Their niche focus, commitment to continuous improvement, and development of the best talent are directed to serve that end.

9.3.6 Alignment of Generic Strategy and Organizational Mission

The top performers have a generic strategy that is aligned with the organization's core values and company mission. Their core values almost universally center around integrity, honesty, and respect – all values perceived as paramount for a firm seeking to develop long-lasting relationships with customers (clients) and employees. The firm's mission statement builds upon their core values and dovetails with the organization's typical generic strategy of customer satisfaction, employee opportunity, and operational excellence. The mission statement characteristically involves phraseology and operating objectives such as *seeking to build lasting relationship, to be the builder of choice, to be the best builder, deliver customer satisfaction, achieve excellence in performance,* and/or *provide an environment for employee growth and fulfillment.* The mission addresses the essential elements for the firm's long-term success. It is a statement skillfully chosen to embody the essence of the firm's generic strategy and provide guidance for organizational structure and operational approach.

9.4 PLANNING CHARACTERISTICS

Interview participants were requested to provide a general overview of their planning process. Typically, the best performers had a strategic planning process that spanned a two-three month period of time. The initial phase entailed preparation for the planning session. They collected and assembled information on issues such as their operating environment, customers, prospective clients, organizational strengths and weaknesses, shareholder needs and concerns, and performance – information that is essential to the planning team (Jackson and Bishop, 2000). Many solicited pre-planning input from clients, employees, subcontractors, architects/engineers, consultants, and other project delivery partners.

The actual planning session involved a 'core' planning group of 8 to 12 people. The group typically convened at a 'remote' site to minimize distractions and promote creativity. The

planning session generally spanned a 2-day period and often required a follow-up meeting several weeks later. During the planning session the group completed a situation analysis (SWOT), brainstormed strategic options, reviewed/modified its mission, established global strategic objectives and 'champions' for each, and selected organizational strategies. Subsequently, management reached deep within the organization to assemble operational teams to develop detailed action plans and functional activities supporting the strategic objectives. All of these planning elements and actions are fundamental planning steps supported by strategic planning scholars and researchers, including Jackson and Bishop (2000), Chinowsky (2001), and Dess and Lumpkin (2002).

A series of questions on the self-administered survey addressed the constructs used to conceptualize strategic planning in this study. These planning characteristics included: planning *flow, formality, comprehensiveness, participation, intensity, and integration.* The personal interviews were structured to more deeply explore these constructs with the leadership of each firm. The findings presented in this section identify the best planning practices with regard to each of these characteristics. Often the findings complement, or 'expand' the conclusions previously presented.

9.4.1 Planning Flow

Planning *flow* defines the source(s) of strategic initiatives. It identifies what level of management or operational personnel have the responsibility and authority for plan development and implementation. Planning *flow* is often referred to as 'Top-down' or 'Bottom-up' planning with 'top-down' planning characterized as centralized planning with senior management primarily responsible for strategy selection and plan development (Papke-Shields, 1997).

Based upon the themes emerging from a number of the data 'groupings' (assessment, strategy selection, participation) the study findings are similar to that purported by Langford and Male (1991) and Spechler (2000) - the best performing planners have a top-down approach to planning. Firm leadership assumes a primary role and is intimately involved in the planning process. Strategic initiatives are formulated at the highest level of the firm. The President/CEO of the firm is the 'key' strategist and acts as a filter and/or catalyst for the organization's strategic initiatives.

The President/CEO as 'Key' Strategist

The President/CEO (CEO) of the best performers was typically the individual responsible for initiation of the strategic planning effort. Their motivation to initially start (and continue) the strategic planning process could generally be attributed to one, or a combination, of three drivers: 1) unacceptable financial performance, 2) evidence of a need to improve organizational alignment – unity of purpose and values, and consistency of operations (a need often amplified by geographical dispersion), and/or 3) a desire to address ownership transition and continuity of the firm. The CEO viewed strategic planning as a means to facilitate organizational unity and purpose while addressing one or a combination of these issues.

Subsequent to the initiation of strategic planning, company leadership has continued to assume the role of 'key strategist' for the firm. Most of the CEO's of the best performers spend a great deal of their time in the 'future'. They are continuously evaluating the firm's direction, its challenges and strategic opportunities, and the long-term implications of the actions that the organization could select. They recognize that most every significant decision they make, or action they support, has strategic implications. Many have consciously delegated a large portion of their operational responsibilities to 'clear away' some of the congestion and distractions of the daily business 'routine'. An action they have taken to make room for the truly important strategic activities vital for the long-term success of the company. They are intimately involved in the development of the organization's strategic plans and selection of the firm's strategic initiatives. Similarly, the CEO assumes an active role during plan implementation.

It should be noted however, that even 'large' general contractors are small when compared to large firms in other industries. The relatively small size of large general contractors facilitates and fosters the intimate involvement of organizational leadership.

The President as a Filter and Catalyst

The president/CEO is the key 'driver' for strategic planning and the firm's chosen strategic initiatives, but they do not *dictate* organizational strategy or action. They solicit advice and input from their planning group and involve them, as well as key organizational personnel, in the critique and refinement of strategic initiatives. Leadership reaches out to a wide spectrum of internal and external sources for input and guidance. They solicit input from key management and operational personnel to identify problems, challenges, and needs. They maintain a close relationship with existing clients to detect operational shortcomings, customers' changing needs, potential strategic opportunities, and developing threats. Many are voracious consumers of industry data and are continuously sifting through and analyzing information that could have an influence on their operating environment or their performance. In large part they serve as a 'filter'

to identify the strategic issues facing the organization and act as a catalyst to initiate organizational 'thought' and action.

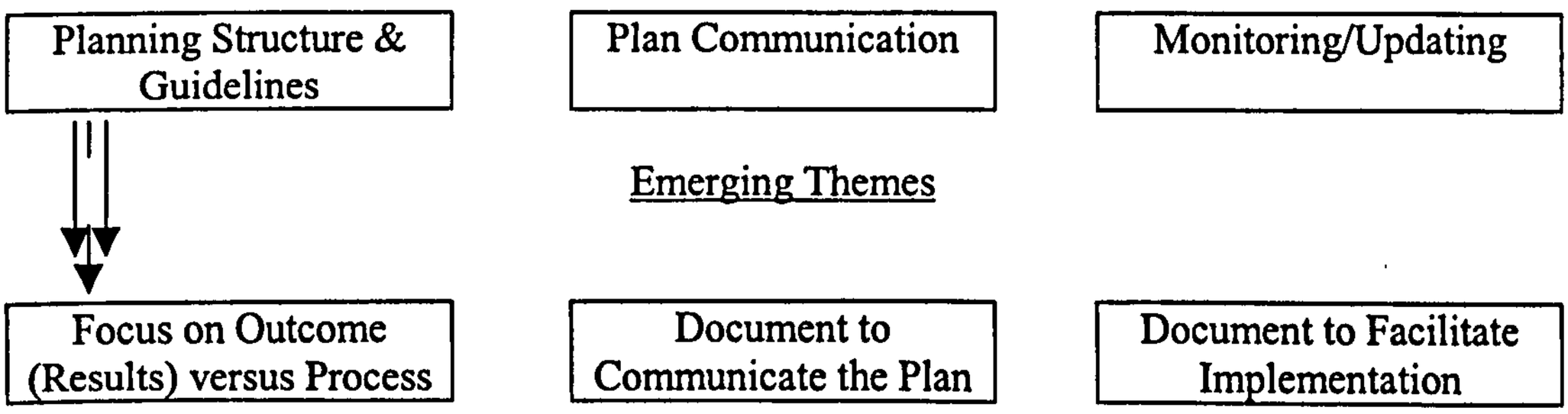
9.4.2 Planning Formality

Planning *formality* is a measurement of the structure and documentation of the planning and implementation process. Formality is also related to the degree of structure for decision-making, responsibility, and authority of the planning participants.

Edum-Forte et.al. (1994) and Weston (1996) submit that the planning process for construction firms tends to be more informal and unstructured. The findings from the survey support those assertions. The best performers have a planning process that could be characterized as relatively unstructured. They have a process not burdened with extensive written guidelines developed to structure the planning process. However, their process did support the formal documentation of their mission, objectives, and action plans.

The planning *formality* patterns that emerged from the data groupings listed in Table 9.2.1 centered on two main themes – planning structure and plan documentation. The emerging themes are graphically depicted in Figure 9.4.2 – *Planning Formality Themes* and presented in detail in the following sections.

Figure 9.4.2
Planning Formality Themes



Data from the interviews supports the assertion that the planning process of the best performers does not have a series of rigid and formal guidelines for plan development nor strict procedures or requirements for voluminous plan documentation. However, the best do interject a level of 'structure' into their planning process to promote effective plan development. They also support documentation necessary to facilitate plan communication and implementation.

Focus on Outcomes Rather than Process

The planning process of the 'best performers' has both informal and structured elements. The planning process is typically not rigid or unduly burdened with administrative requirements or procedures. However, the process is generally quite 'structured' to promote preparedness and prudent use of the participant's time. Planning participants are frequently given responsibilities or tasks in preparation for the planning session. These tasks may include items such as market investigation, customer research, financial analysis, or internal assessment. Agendas are published and meeting minutes are taken and published to facilitate follow-up.

Planning guidelines are relatively 'loose' and unstructured. The organization and the planning team(s) are more focused on outcomes than the process to achieve the planning objectives. In fact, many of the firms occasionally alter planning participation, format, and/or procedure to interject a 'fresh' approach to the planning process and encourage participation, flexibility, and freedom of thought. Creativity is favored over structure. A 'formal' process for corporate review and approval of the strategic plan is typically non-existent, or largely perfunctory, because of the intimate involvement of senior management in the planning process.

Documentation for Communication and Follow-up

Planning results are not documented to fulfill an administrative or bureaucratic need, but rather to: 1) facilitate communication of the strategic plan to the organization, and 2) to provide a 'control' document to aid plan implementation. Company core values, mission, vision, and strategic objectives are documented and communicated throughout the organization to promote understanding, commitment, and alignment of operational focus. Action plans are documented to permit assignment of responsibility and facilitate the monitoring of progress toward planned objectives.

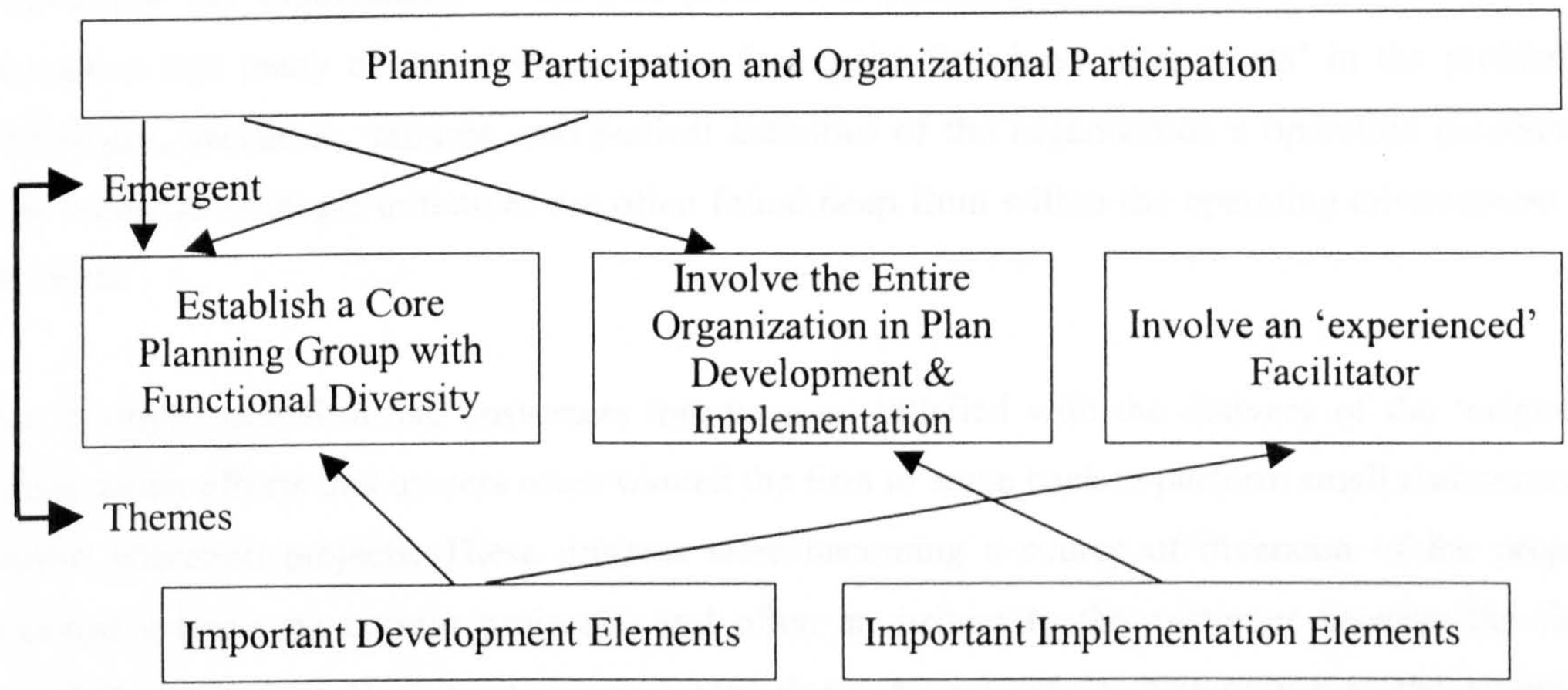
9.4.3 Planning Participation

The construct of strategic planning participation embodies both 'who is participating' and to 'what degree'. It addresses the number and diversity of participants, the degree of their involvement, and the quality of coordination and communication amongst the parties.

Themes within the category of 'planning participation' originated from four main data groupings in Table 9.2.1 – planning participation, organizational participation, important development elements, and important implementation elements. The data groupings and the emerging themes and their relationships are graphically displayed in Figure 9.4.3 – *Planning Participation Themes*. Based upon the qualitative data, the best performers have a high level of organizational

participation in the planning process. Company leadership is actively involved in the planning process, promotes the participation of functional managers and key organizational personnel, and supports extensive communication between planning participants during plan development.

Figure 9.4.3
Planning Participation Themes



Core Planning Group with Functional Diversification

The management team with primary responsibility for strategic plan development ranged from six to thirty-five participants, but typically involved from 8 to 15 people depending on the number of operating 'groups'. Many firms had limited the size of the 'core' planning group to facilitate planning focus and manageability of the process. However, in most every case, the core planning group had representation from every functional department and operating group within the firm. The CEO led the planning unit and the nucleus included senior management and key personnel from business development/sales, estimating, financial/accounting, and operations (including both project management and field supervision). This diversity facilitated input from key managers with a wide spectrum of business knowledge and operational perspective – input deemed essential to the development of a sound and comprehensive plan that the organization had the ability and commitment necessary to implement (Macmillian and Tampoe, 2000). To enhance the planning process, and help members to prepare, participants were often expected to complete preparatory work/investigation prior to the plan development session(s).

Involve the Entire Organization to Enhance Success

The best performers believe that 'wide' planning participation is key to facilitate successful plan development and implementation. Similar to Bishop (2001) and Hamel (2000), the top performers judge participation a key element for proper investigation and assessment of their operating

environment, essential to ensure that strategic issues confronting the organization are surfaced and thoroughly evaluated, and critical to promote organizational understanding, commitment, unity, and focus during the implementation phase.

During plan development the best performers solicit input from a wide range of personnel throughout the organization – not just prior to a planning session, but continuously. They recognize that many of the strategic issues facing the firm have their 'roots' in the problems, challenges, successes, failures, and tactical activities of the organization's operating personnel. The seeds for strategic initiatives are often found deep from within the operating environment of the firm.

For example, one firm had customers that were so satisfied with the delivery of the 'original' construction efforts that owners often wanted the firm to come back to perform small maintenance and/or alteration projects. These projects were becoming a source of diversion of the project manager's focus on current project(s) and often an irritant to the customer because the firm couldn't respond as quickly as the customer deemed appropriate. Not only was the situation starting to affect performance on current projects, but it also threatened to adversely affect customer satisfaction – a perception that could unfavorably impact future work opportunities. To relieve the burden upon its managers, improve response time, and expand the spectrum of customer services, the contractor established a 'small projects' operating unit. This strategic response to an operational problem not only enhanced customer satisfaction, but also improved the firm's profitability. A similar scenario, where strategic initiatives emanated from deep within the organization, was relayed time and again by the respondents. They noted that it was crucial to enlist broad input and support from individuals throughout the organization to illuminate and evaluate the strategic problems and opportunities confronting the firm.

Broad participation is deemed important for plan development, but it is believed to be absolutely crucial for successful plan implementation. Planning involvement and participation is critical for 'buy-in', and plan commitment is essential for tactical planning and execution. The most successful firms involve personnel early in the plan development process, communicate openly and often concerning strategic issues and objectives, and promote wide participation in the development of the action plans at the functional level. The 'core' planning group may develop strategy and organizational objectives (the what), but leadership enlists the operational body of the firm to develop the tactical plans (the how) that are needed to achieve the strategic objectives of the organization.

Utilize a Facilitator to Improve the Process

Effective facilitation of the planning process requires preparation, process knowledge, and discipline. Several of the best performers had a planning process facilitated by the CEO or shared responsibility by key members of the planning team. However, the majority of the firms used a facilitator regularly, occasionally, or planned to involve a facilitator(s) during their next planning effort. These firms incorporated a facilitator for one or both of the following reasons:

- To effectively manage the process: The CEO, or key managers were often too busy to do an adequate job of organizing and leading the planning effort. They were distracted by the day-to-day activities of running the business. The best performers found that facilitators enhanced organizational preparation and 'data' assembly. Facilitation also supplied a 'proven' structure and enhanced planning discipline.

- To improve the outcome: Facilitators brought a 'fresh' perspective to the planning process. They helped prevent the process from becoming 'stale'. Because of their 'disconnected and objective perspective' they were more inclined to ask the 'tough' questions that could help the organization surface and evaluate key strategic issues.

The best performers submit that a facilitator will enhance the planning process, but only if it is the 'right' facilitator. They submit that a facilitator is effective only if he/she: 1) is familiar with the construction industry, 2) understands leadership's planning needs, and 3) is capable and willing to address the organization's unique requirements.

9.4.4 Planning Comprehensiveness

Planning *comprehensiveness* is a measurement of the extent to which an organization considers and evaluates all possible strategic alternatives available to the firm (Papke-Shields, 1997). Comprehensiveness is characterized as the degree of situation diagnosis, alternate generation, alternate evaluation, and decision integration (Fredrickson, 1980).

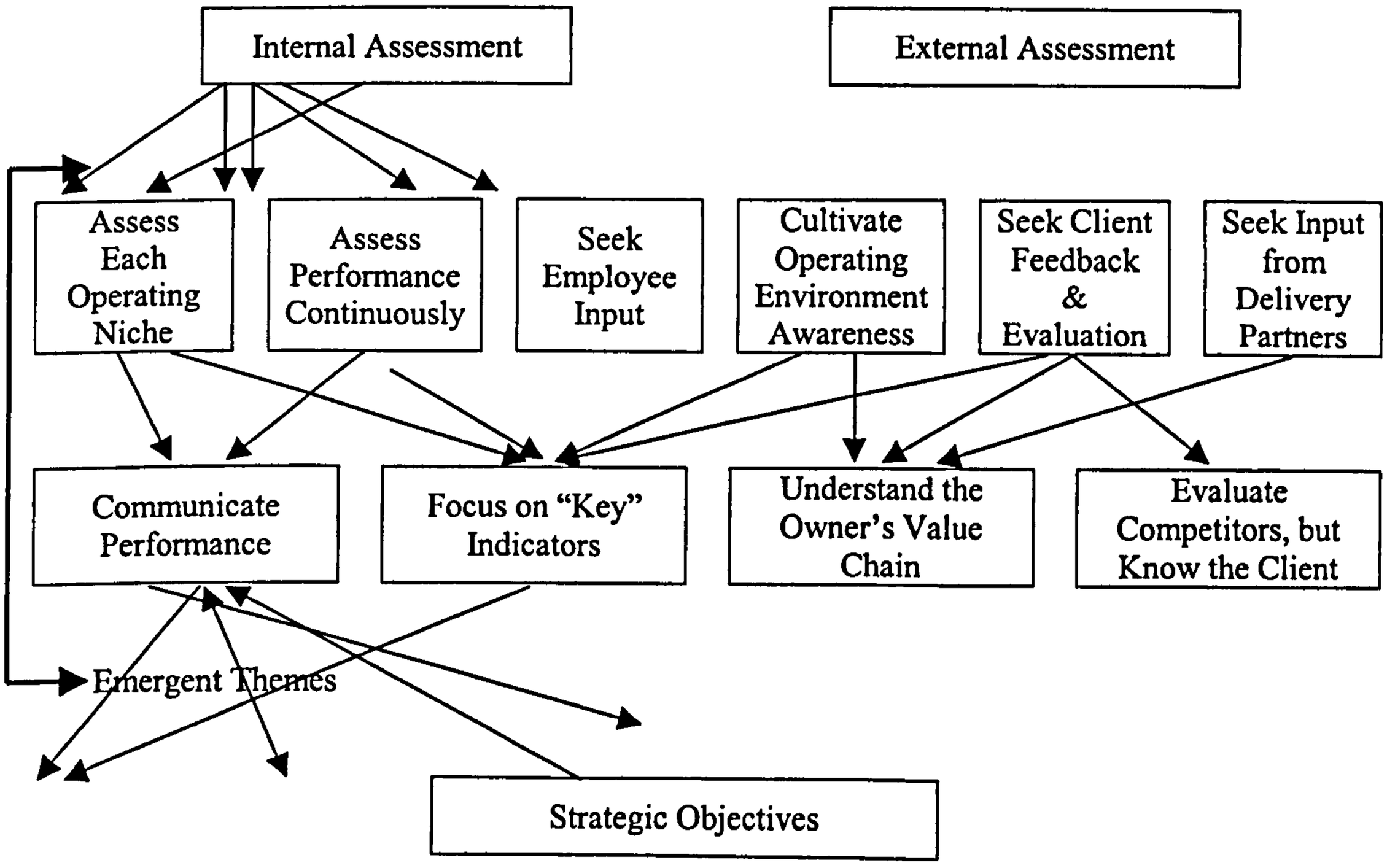
The data collected from the self-administered surveys supported the assertion that the best performers evaluated multiple courses of action prior to making strategic decisions and initiating organizational action. They performed an extensive evaluation of organizational capabilities, strengths and weaknesses, and comprehensively tracked and evaluated their environment.

The personal interviews confirmed that the best performers' planning process addressed the 'traditional' strategic planning elements as suggested by Fails Management Institute (Jackson and

Bishop, 2000), Wheelen and Hunger (2000), Dess and Lumpkin (2002), and many other strategic planning scholars and researchers. The planning elements include: a) situation analysis of the current and anticipated operating environment (SWOT), b) brainstorming of the key strategic issue(s) facing the organization, c) discussion and agreement on organizational values and mission, d) evaluation and establishment of global objectives and organizational strategies, e) selection of strategies, f) development of tactics and action plans, and g) implementation and follow-up.

The interviews also provided additional insight into the firms' internal and external assessment process and the development of organizational objectives. Figure 9.4.4 – *Planning Comprehensiveness Themes* graphically depicts the themes and interrelationships that emerged from the data groupings (internal assessment, external assessment, and strategic objectives) and the sections that follow present a detailed discussion of each theme that emerged from the data.

Figure 9.4.4
Planning Comprehensiveness Themes



Continual 'Objective' Assessment is Key

The top performers are continually probing the market for intelligence. They believe that meaningful data and feedback concerning their operating environment, and the firm's

performance within that arena, are essential for successful plan development and effective implementation. Top performers judge that most organizational processes, objectives, and performance indicators can, and should, be measured. They believe that assessment and measurement: 1) is key to identify areas needing improvement, 2) must be continuous, 3) must be as 'objective' as possible, and 4) must provide feedback that is meaningful and useful – provide guidance for future action. The best performers are committed to performance and environmental assessment and are dedicated to the development and refinement of measurement techniques to provide appropriate and comprehensive feedback.

Cultivate Operating Environment Awareness

The best performers have a keen awareness and understanding of the general market and their operating environment. They are actively engaged in their communities and operating markets. Firm leadership and management are members, and often hold leadership positions in community and industry associations. They are voracious consumers of general market data and often draw on the market insight provided by 'outside consultants'. The firm's niche focus improves their knowledge and understanding of present and evolving trends in their selected operating arena. However, some also had personnel performing 'frequent' in-depth investigations of each market niche the firm was pursuing.

Continually Seek Client Feedback

The best performers have an intense focus on their current and prospective clients. They continuously solicit feedback on their performance and regularly seek information from the client's management team concerning the customer's operational needs. Performance feedback is requested on both a formal and informal basis.

Leadership of the top performers is readily accessible to their customers. Senior management solicited personal one-on-one feedback from their clients on a regular basis. Project management and company leadership both stayed 'close' to their clients. Many gave their clients the direct line to the CEO of the contracting firm. They made it easy for the client to ask for assistance, provide criticism, or offer praise. When feedback was provided they were quick to respond. They made the client's needs an organizational priority.

In addition to informal client assessment and feedback, the best pursued a structured and comprehensive program to obtain the client's perception of their performance. Many identified the client's needs and expectations prior to the initiation of services and then sought continuing assessment of the firm's performance during and after delivery. Client surveys (assessment forms) were developed incorporating indicators that the clients deemed important measurements of

performance, rather than what the contractor 'perceived' as important. They sought assessment from those close to the project as well as the customer's senior management. To improve the quality of feedback an individual 'removed' from the delivery process, often the president of the contractor or a consultant, administered the surveys. Feedback was solicited at regular intervals during the delivery process with a more comprehensive evaluation subsequent to completion of the project. In addition to direct client feedback, the best performers also tracked performance measurements such as the percentage of repeat work, percentage of a client's work program performed by the contractor, percentage of negotiated work, success rate on new work proposals, the quantity of call backs or warranty issues, and prompt payment as indicators of client satisfaction.

Understand the Customer's Value Chain

In an effort to provide better, and a wider spectrum of services to their clients, the best often performed a 'value chain" analysis. They interviewed experts up and down the customer's value chain to better understand their development process and gain insight as to how they could better serve their clients' needs. They would solicit input from sources such as architects, designers, engineers, city officials, zoning boards, feasibility/market analysis firms, site investigation companies, bankers, key client customers, and the client's own operations personnel. The overall goal was to enhance their understanding of the client's business and identify where they could improve, or expand, service along the value chain. This process resulted in a better understanding of the contractor's service 'fit', the discovery of new opportunities, and facilitated a stronger and deeper relationship with the client.

Systematically Target Prospective Clients

In addition to input and performance assessment from past and existing clients, the top performers systematically identified, evaluated, and pursued firms that were strategically important to their long-term success. Subsequent to client identification, they organized intelligence-gathering teams to investigate these prospective clients – to determine their needs and service requirements. Action plans were then developed that could lead to a working relationship with these 'targeted' customers. The best performers had a marketing effort that was very focused and aligned with the firm's long-term strategic interests.

Solicit Input from Delivery 'Partners' and Peer Groups

Best practices also include input and assessment from the firm's 'partners' in the delivery process. Assessment and feedback was solicited from subcontractors, vendors, architects, and engineers. They sought feedback on an informal basis via personal communication, group meetings, or roundtable discussions and formally, through performance assessment surveys. In addition, some

of the best performers found peer group evaluations very beneficial. However, the challenge for most was locating a non-competing group of 'like-firms' that could provide insight valuable to the organization.

Evaluate Your Competition, but Know your Customers

While the best performers were very interested in their competition, they were often more focused on their customers and the operating market. Most informally tracked competitors, evaluated unsuccessful new work proposals, reviewed competitors bidding and building practices, and solicited comparison evaluations from customers. However, many of the best performers found competition analysis and bench-marking of financial performance of limited value for two primary reasons: 1) bench-marking financial performance was difficult because of the different cost reporting and accounting practices, and 2) knowing what a competitor was doing generally did not help them provide better service, or facilitate an improvement of their competitive advantage – they found customer input to be of greater value. The best performers spent considerably more time and resources trying to understand and exceed customer needs and expectations, than they did evaluating a competitor's approach or operational successes. They 'shaped' their services and approach to 'win' the customer, rather than to beat a competitor.

Communicate Performance Indicators

The best performers are very committed to extensive, objective measurement of results to facilitate improvement in performance and guide decision-making. They develop processes to collect and evaluate internal data, and utilize insight from sureties, financial institutions, and industry organizations. The best are keen on measurement and tracking results against planned objectives. While they judge measurement as key to assess progress, they strongly believe it is important and beneficial to widely communicate performance indicators. Leadership wants the entire organization to know how the firm is performing. They are 'open book' with employees concerning organizational objectives and regularly communicate performance results regarding financial and strategic objectives.

Assess Performance by Niche(s) and Operational Approach

Like most general contractors, the best performing firms regularly collected financial data on each project to facilitate project control and to forecast the profitability of the project and cumulatively, the overall company. However, the best performers organized and analyzed profitability data on multiple levels. They also evaluated profitability by client, market segment, management team, contracting method, category of work, client type, and delivery system. They evaluated both the direct and indirect cost associated with each niche. The objective of their analysis was to determine which market niches and operating approaches were most profitable for the firm – to

provide guidance for: 1) the selection of market niche(s), and 2) refinement of their operational abilities to more profitably service the needs of the clientele within those chosen niches.

Seek Employee Assessment to Improve Strategic Initiatives

The best performers obtain input, both formally and informally, from employees on a spectrum of issues deemed key for long-term organizational success. They canvassed office employees, field supervision, and management personnel concerning subjects including employee attitudes and abilities, internal communication, employee's insight into client and vendor satisfaction, and their perception of organizational capabilities, strengths, and weaknesses. This input was gathered through individual interviews, detailed questionnaires, round table discussions, and/or large company meetings designed to obtain organizational critique, suggestions for improvement, and ideas for strategic initiatives. With many of the firms it was not uncommon to directly involve, and obtain strategic input, from a majority of the permanent salaried personnel of the organization.

This input from employees was generally collected on an annual basis during the early phase of the firm's strategic planning effort. Often the strategic planning facilitator was involved in the process. The firms found that employee input provided valuable insight concerning the firm's strengths, weaknesses, organizational structure, resource needs, and training opportunities. The breadth and depth of input provided guidance for the selection of operational initiatives while also improving the organization's commitment to plan implementation. The best recognized that many of their strategic initiatives flowed from operational problems and opportunities, and therefore established processes and feedback mechanisms to effectively obtain that input.

Establish Key Non-Financial Objectives

The top performers have strategic objectives that draw organizational focus to more than just the financial goals involving profitability and sales/revenue. While financial objectives are viewed with supreme importance, profitability is recognized as the 'result' of organizational actions and strategic focus, rather than the seed for exceptional performance. Similar to Thompson and Strickland's (2001) supposition, the best believe that non-financial objectives provide direction for organizational focus and help convert the mission into operational performance targets.

The best establish objectives involving key drivers seen as significantly influencing organizational success. They establish objectives that are realistic and critical for the firm's competitive advantage. This approach is comparable to the one advocated by Kaplan and Norton (1996) and Hamel (2000).

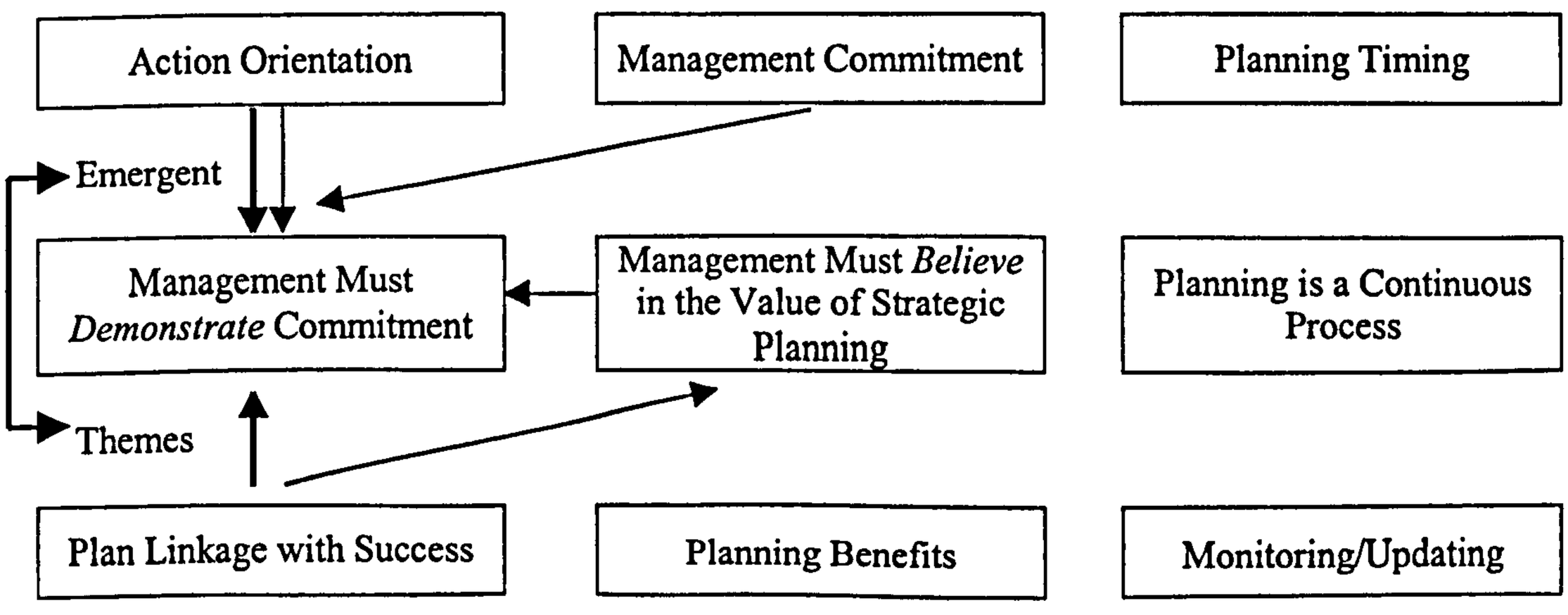
Organizational objectives are both internally and externally oriented. Internally positioned goals often relate to operational challenges and/or efficiency improvements. They typically involve issues such as operational control, identification and recruitment of employees, training, quality, cost reduction, delivery time, the level and spectrum of services, technology, and organizational structure. Externally focused objectives are typically market or client driven. They often focus on issues such as continued penetration of their current client base, identification and development of clients deemed to be strategically important to the firm, strategic alliances, and program development in selected geographies and/or market niches.

The objectives selected by the firm are based upon perceived 'opportunity, organizational capability, and planned capacity'. The objectives are few in number so as to not dilute the organization's focus. Objectives are limited to a select group of critical issues that could have a significant impact upon organizational performance. The best focus on the key issues, or opportunities, facing the organization that could significantly influence the long-term success of the firm if effectively addressed.

9.4.5 Planning Intensity

Planning intensity embodies the concepts of planning frequency, planning horizon, resource commitments to the planning effort, and management commitment to the strategy development and implementation process. The patterns that emerged from the data distilled into three main themes – 1) management must demonstrate its commitment, 2) management must 'believe' in the value of strategic planning, and 3) planning is a continuous process. The data groupings providing a base for these themes and the relationships of each are shown in Figure 9.4.5 – *Planning Intensity Themes*.

Figure 9.4.5
Planning Intensity Themes



The best performers have a high level of planning intensity. Top management frequently discusses and evaluates strategic issues. Leadership devotes time and resources to the strategic planning effort. They are aggressively committed to the formulation and implementation of strategic plans. The following sections provide a detailed review of each of the themes that emerged from the qualitative data.

Leadership Demonstrates Its Commitment

The leadership of the best performers believes in a strong linkage between strategic planning and long-term organizational success. They submit that it is tantamount to their success. This belief is so strong that many cite the loss of strategic focus as the root cause of past failures. They concluded that poor organizational performance resulted when the firm strayed from its strategy - stopped 'working' its strategic plan. Further evidence of the strength of their convictions is their attitude concerning key employee commitment. They subscribe to the philosophy that if a 'manager' is not committed to the core values of the organization, company mission, and the strategic plan, they are either 'converted' or removed from the planning and implementation process, and ultimately from the organization.

Leadership demonstrates its commitment to plan development and implementation in a multitude of ways. Their commitment is evidenced from the initial allocation of resources and time to develop the strategic plan. It continues through the refinement and reinforcement of strategic goals and objectives of the organization during implementation. Leadership keeps core values, company mission, and strategic objectives 'front and center'. They actively support initiatives necessary to reach strategic objectives, promote strategic successes, quickly analyze failures or shortcomings, and champion the assessment and evaluation of implementation progress. Top management is excited about the firm's strategic thrust and generates organizational enthusiasm through continuous encouragement and guidance. One indicator of that enthusiasm and commitment is the high rate of participation in this research effort.

Leadership Believes in the 'Value' of Strategic Planning

The best performers believe in the value of strategic planning. They see benefits similar to those purported by scholars and researchers including superior strategic assessment (Newcombe et al., 1990), improved operational alignment (Bishop, 2001), better defined culture and values (Dess and Lumpkin, 2002), and enhanced organizational focus (McKenzie, 1999). They believe that it:

- Encourages the Firm to Shape Its Future: Strategic planning allows the organization to influence its destiny. It encourages the firm to 'shape' its operating environment rather

than just respond to it. They see it as a fundamental process for any organization. A process of deciding what it wants to be and mapping a plan to achieve those objectives.

- Facilitates Commitment: The process facilitates broad input and engagement on strategic alternatives and organizational support of the selected strategic initiatives. It helps define the culture and strategic approach, improves communication, and enhances employees' sense of belonging and organizational commitment.

- Improves Organizational Focus. Strategic planning provides a blueprint for moving forward. The plan promotes understanding and unity. It establishes what is important to the organization and how the firm intends to grow the business. It facilitates a more 'proactive' approach to the firm's operating environment. Strategic planning helps the organization identify and focus on the key issues and objectives that are critical for success. It helps the firm define its objectives, communicate those objectives to facilitate buy-in, and provides a scorecard to measure progress. Repeatedly, the best performers submitted that without a long-term strategic plan, the firm would just be 'wandering around from project to project'.

- Enhances Strategic Assessment. Strategic planning promotes an environment that encourages management to remove itself from the day-to-day activities and objectively evaluate the direction of the firm. It helps an organization analyze their business and its operating environment and facilitates the identification of issues critical for long-term success. Strategic planning improves understanding and perspective. It promotes creativity and encourages constructive change. The process prepares the firm for unanticipated events - both favorable and unfavorable.

- Promotes Organizational Alignment: Strategic planning and strategy are often abstract concepts to line managers and the planning effort helps crystallize these concepts. It provides a strategic perspective for daily decisions and actions. The process facilitates the alignment of strategic goals and tactical actions. It provides operational personnel the insight that they need to understand the linkage between their short-term decisions and the long-term objectives of the firm. The process promotes more disciplined and strategically consistent decisions throughout the organization.

Development and Implementation is a Continuous Process

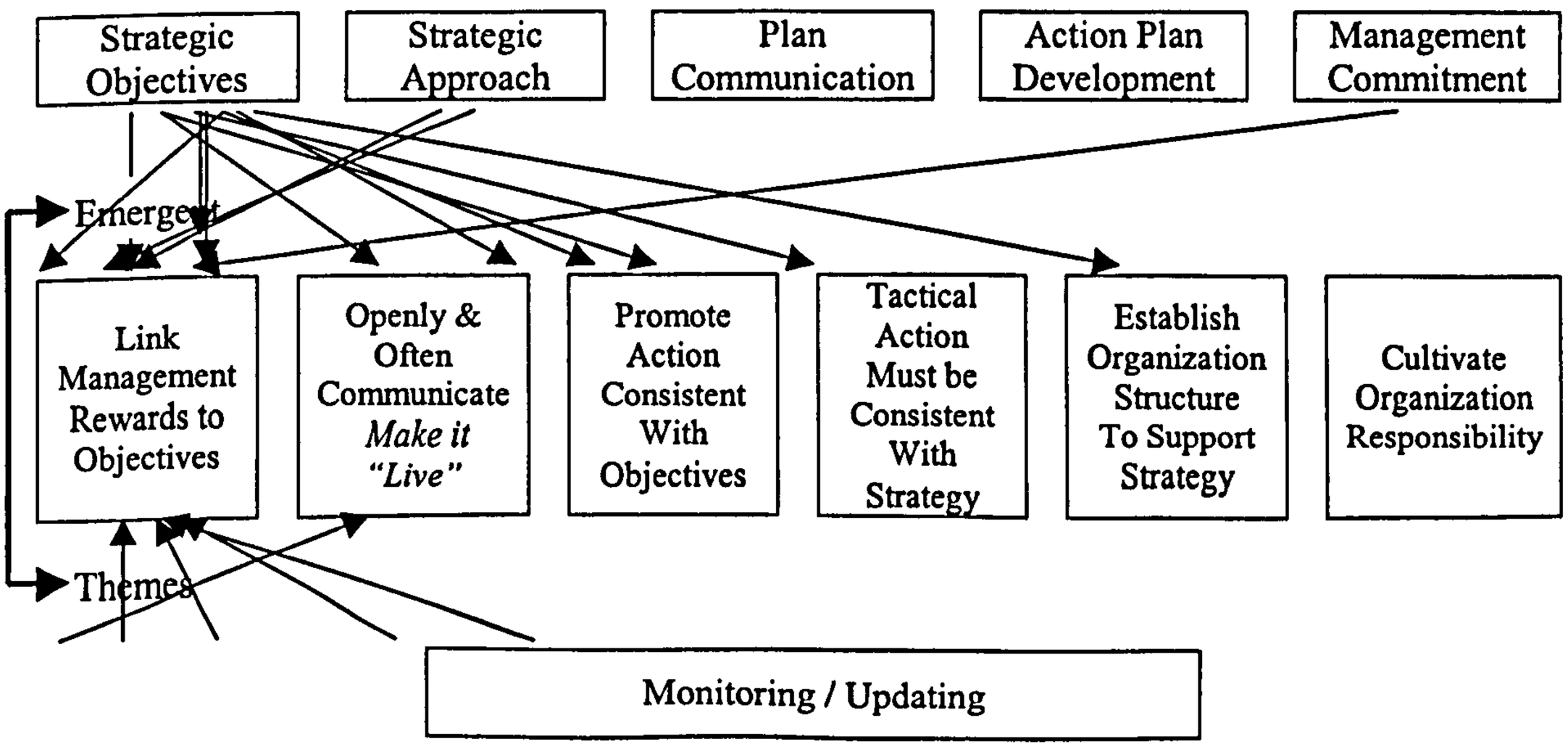
The best know that the development and implementation of strategic initiatives is a continuous process. They may have a distinct annual strategic planning process, but they are purposely planning and acting strategically each and every day. The best performers are continually assessing their operating environment and generating organizational feedback to detect operational or environmental discontinuities, opportunities, and threats. The best performers are frequently convening to review current initiatives, evaluate future strategic alternatives, and plot current and future strategic response(s). They are continually 'working' their strategic plan, while at the same time refining and adjusting it to optimize performance.

9.4.6 Planning Integration

Plan 'integration' is a measure of the operationalization and institutionalization of an organization's strategic plan. It involves issues including the level and method of plan development and communication, implementation of action plans and programs, allocation of resources, selection of projects, monitoring activities, strategic plan-business plan linkage, and the relationship between strategic plan objectives and managerial incentives.

A statistically significant finding from the self-administered survey was the best performers' commitment to plan integration and implementation. The themes that emerged from the qualitative data obtained via the personal interviews also support an integrative orientation. Figure 9.4.6 – *Planning Integration Themes* graphically displays the themes that emerged from the respective qualitative data groupings.

Figure 9.4.6
Planning Integration Themes



The best performers openly and actively communicate strategic objectives. They develop detailed action plans and allocate resources for the organization's strategic initiatives. The annual 'business' planning process is tightly integrated with the strategic plan. Progress toward planning objectives is frequently monitored. Operational policies are comprehensively evaluated to ensure alignment with strategic objectives and management performance is linked to strategic objectives. The following sections provide a detailed review of each of these emergent themes.

Communicate Openly and Often

The best performers communicate openly and often for two primary reasons: 1) buy-in and support, and 2) critique and feedback. They want the entire organization to know and 'live' the organization's core values and be familiar with the company mission. They believe that this knowledge facilitates the alignment of action. Detailed information concerning the long-term objectives of the firm is shared with employees and their input and participation is actively solicited during the development and implementation of action plans. The best expect everyone to be involved in plan implementation and they take steps to ensure each member understands their role. They recognize that communication is critical for understanding and support. Top performers believe that talented people need to feel part of an organization larger than their project team. The company wants their active participation in the firm and cultivates an environment that facilitates an employee's feeling of belonging and affinity for the company. They are convinced that informed employees make better decisions.

A distinguishing characteristic of the best performers is their 'open book' policy. They share key information on targeted niches, clients and projects. They communicate strategic objectives and the tactical plans of each department. The best want project management, field supervision, estimating, sales, accounting, finance, and administrative personnel to understand the details of the strategic plan so that their daily actions are 'bounded' and aligned with the long-term objectives of the firm. The strategic plan is communicated via company-wide, divisional, departmental, and functional meetings conducted by the CEO and/or key management personnel that have been intimately involved in the planning process. During the implementation stage, plan progress is regularly and widely communicated. On key issues this feedback may occur weekly, but typically at least quarterly. The best performers want the organization to know how the company is performing relative to its strategic objectives.

Business Strategy Influences Tactical and Functional Strategy

The tactical and functional strategies of the top performers typically emanate from the business strategy and they are supportive of the long-term objectives of the organization. Targeted market niches and clients are linked to strategic objectives. Individual projects and work programs are

selected for their alignment with organizational strengths and long-term objectives. Training, resource procurement, and development initiatives often flow from the strategic planning effort. Key organizational performance indicators are selected based upon their ability to measure progress toward strategic initiatives and organizational objectives. The strategic plan is treated as a 'working' document and the firm's tactical planning and action are linked to the firm's strategic intent.

Strategy Influences Organizational Structure

The vast majority of the best performers were organized as, or moving toward, semi-autonomous business units or strategic business units (SBU's) – even when the firm operated out of a single office. Each business unit was pursuing a limited number of market niches, or in some cases a single client. SBU management and personnel were selected, developed, and organized to effectively pursue the selected niche(s) or customer(s). Organizational resources were allocated to support strategic objectives and market niches important for the long-term success of the company. Firms were developing their business unit structure to increase operational efficiency, reduce risk, improve customer satisfaction, and ultimately to increase profitability. The best performers organize, staff, and train to meet long-term strategic objectives, not just short-term operational needs.

An Emphasis on Action – Action Consistent With Objectives

The top performers believe that company leadership, and the entire organization, must take action – work and 'live' the strategic plan. They know that it is not enough to plan. To be recognized as the 'best' an organization must take steps to be the best. The best are convinced that an organization does not become the best by good intentions – but rather by good planning and appropriate action. A distinction of the best performers is that they emphasize action – implementation of the plan. 'Action' is their operative word. They firmly believe that action speaks louder than words, good intentions, or a thick, well-documented strategic plan. Organizational commitment to their strategy is exhibited through coordinated tactical and functional decisions and deeds. The best performers aggressively implement strategic initiatives.

The top performers also foster actions consistent with the firm's mission and strategic objectives. If training is a strategic initiative, they allocate the time and resources to accomplish that objective. If quality performance is strategically important they will sacrifice profit to make a project 'right' without being prodded to do so by the architect or client. Selected market niches are actively pursued, operational needs are aggressively addressed, and organizational strengths are identified and exploited. Universally, client relationships and satisfaction are strategically important to the firm and actions reinforcing those beliefs are supported. Most all submit that they

have, and will continue, to sacrifice project profitability to remain 'true' to their customer satisfaction objectives. Many have terminated relationships with valued employees because of an employee's inability, or unwillingness, to align their actions with the firm's core values or strategic objectives. Decision and corresponding actions are consistent with company values, mission, and strategic initiatives, even if the choices are difficult.

Cultivate Organizational Responsibility for Action Plans

The strategic objectives of the firm are identified and conceptually evaluated during plan development. A 'champion' is identified and responsibility is assigned for each strategic objective of the organization. The champion is typically a senior manager of the firm – an individual who has the authority to marshal the resources necessary for plan implementation. However, leadership rarely dictates 'means and methods' to achieve strategic objectives – they involve the organization to accomplish that end. Senior management judges that 'operational personnel' can best develop the detailed plans required for effective implementation of the functional activities supporting the plan. Therefore, the best performers reach deep into their organization to assemble an appropriate team for the development and implementation of detailed action plans. They selectively pick team participants based upon the individual's ability, expertise, and commitment. Membership includes representatives from every segment and function of the organization that are affected by the strategic initiative under consideration. Some reach to a depth of foreman in the field if an operational issue warrants their input. Every attempt is made to involve the best personnel from an appropriate cross-section of the organization.

Link Management Rewards to Strategic Objectives

The best performers link management performance with strategic objectives. Key management personnel are typically designated as 'champions' of selected strategic objectives. They are intimately involved in the development and implementation of functional action plans and they are held accountable for results. In addition, senior managers are often asked to establish personal goals that support the company's strategic goals. Senior management's performance on all of these parameters is evaluated on a regular basis. Management's base salary, deferred compensation, bonus, advancement, and/or stock options are linked to performance on strategic initiatives.

Monitor and Update Frequently

The best performers keep the strategic plan, along with its objectives and action plans, 'in front' of senior management and the entire organization. They make it a 'live', working document, not a plan with well-conceived intentions gathering dust on the president's bookshelf. The best believe that monitoring planned progress is essential for effective implementation. They make monitoring

and enforcement a part of the organizational culture. Leadership believes that measurement is essential and they judge that even 'subjective' goals can, and should have, 'objective' indicators. These key indicators are used to track organizational, business unit, team, and individual progress on a regular basis. The best expect commitments to be met, and inspect to ensure compliance.

The best have an attitude and approach that they are 'evaluating and refining' strategic intent on a daily basis. They are continually sifting through internal and external data to improve decision-making and long-term performance. On a more formal basis, the 'core' planning unit typically meets on a monthly basis to review operational results and planned performance. A significant portion of this monthly meeting typically deals with issues such as profitability, sales, staffing, and other near-term operational issues. However, the best performers also use this assembly to evaluate progress on strategic initiatives. Strategic objectives are discussed, key indicators are evaluated, and 'champions' and/or their teams are often invited to provide an update on their assigned strategic initiative(s). Successes and failures are evaluated and shared. Specific action plans are reviewed and progress is assessed. The necessary modifications and adjustments to organizational strategy and strategic initiatives are identified, communicated, and corresponding responsibilities are assigned.

On a quarterly, or bi-annual, basis a more comprehensive strategic review and evaluation is undertaken. During these meetings it is common for the firm to take an exhaustive evaluation of one or more market segments/niches. The 'core' planning group will often meet 'away' from the office to critique progress, assess strategic objectives, evaluate the operating environment, and adjust or refine strategic initiatives and actions plans.

9.5 STRATEGY AND PLANNING BEST PRACTICES

The input offered by the best performing contractors provided insight concerning the generic competitive strategy pursued by the firms. As previously noted, the strategic thrust of the best performers has a number of consistent elements. These fundamental practices are summarized in the following section.

The interview process also identified planning practices that were typically pursued by the top performers. A summary of these strategic planning practices of the best performers is reviewed and a listing of the 'strategic planning best practices' is presented.

9.5.1 'Generic' Competitive Strategy

All of the best performers pursued a 'generic' competitive strategy of differentiation with focus on a limited number of market niches. They seek to compete on value, rather than low price. To support this competitive approach, they work to attract and develop great talent and foster a passionate organizational focus on customer satisfaction and operational excellence. Their mission and competitive strategy are aligned and center on three core elements: customer satisfaction, employee opportunity and fulfillment, and operational excellence. A summary of the key elements of their 'generic' competitive strategy is presented in Table 9.5.1.

Table 9.5.1
'Generic' Competitive Strategy of the Top Performers

Best Practice	Comments
Differentiation and Niche Focus	Focus on a limited number of niches and develop an expertise in each.
Compete Based Upon Value	Compete by providing customer value, rather than low price.
Focus on Client Satisfaction	Exceed client expectations – seek to delight and amaze the customer.
Attract & Develop the 'Best'	Attract the best (right) talent. Cultivate an environment to facilitate employee development.
Strive for Operational Excellence	Continuously strive to be the best in the niches pursued.
Align Mission and Strategy	Align mission and strategy to achieve consistent and compatible action.

9.5.2 Strategic Planning Best Practices

The best performing general contractors explicitly develop and communicate the strategic intent of the organization and actively pursue the implementation of their strategic objectives. Their strategic planning process and competitive strategy permeates the firm's approach and continuing actions. It influences selected markets and clients, organizational structure, departmental and functional action, and employee selection and development. Effectively developing and implementing strategic intent is viewed as critical for the organization's long-term success. A summary of the strategy development and implementation practices of the best performing general contractors – the 'best practices' – is presented in Table 9.5.2 – *Strategic Planning Best Practices*.

Table 9.5.2
Strategic Planning Best Practices

Planning Characteristic	Comments
Planning 'Format'	
Prepare the Participants	Have the participants collect, study, and/or prepare material for the planning session.
Select an Appropriate Planning Site	Select a site that minimizes/eliminates distractions and promotes creative thought.
Devote Enough Time	Don't 'rush' the process – especially if there are new participants. Quality is the goal.
Establish an Agenda, but Be Flexible	Make efficient use of participants' time, but promote fruitful discussion and participation.
Planning Flow	
President/CEO is the 'Key' Strategist	Leadership assumes a primary role in the development of strategic intent.
President/CEO is a Filter and Catalyst	Leadership serves as a strategy 'filter' and acts as a catalyst to initiate 'thought' and action.
Planning Formality	
Focus on Outcomes Rather than Process	Cultivate an informal process with discipline and structure for results.
Document for Communication and Implementation	Document to facilitate communication and plan implementation.
Planning Participation	
Functional Diverse Planning Group	Establish a strategic planning group with a wide spectrum of business and operational knowledge.
Involve the Entire Organization	Participation is key for assessment, evaluation, understanding, and commitment.
Use a 'Knowledgeable' Facilitator	Process management and outcomes are improved with an effective facilitator.
Comprehensiveness	
Continual Assessment is Key	Continual performance measurement and environmental assessment is essential.
Cultivate Environmental Awareness	Develop a keen awareness and understanding of the operating environment.
Continually Seek Client Feedback	Be accessible and seek feedback often from customers - both formally and informally.
Understand the Client's Value Chain	Understand the client's business and how to improve/expand service along the 'chain'.
Systematically Target Clients	Selectively identify, evaluate, and pursue strategically important customers.
Solicit Input from Delivery 'Partners'	Seek input and assessment from the firm's 'partners' of the delivery process.

Table 9.5.2
Strategic Planning Best Practices (continued)

Planning Characteristic	Comments
Evaluate Your Competition, but Know your Customers	Shape services and approach to 'win' the customer, rather than to beat a competitor.
Communicate Performance Indicators	Regularly communicate performance results regarding financial and strategic objectives.
Assess Performance by Niche(s) and Operational Approach	Analyze performance by niche and approach for market insight & operational refinement.
Seek Employee Assessment of Strategic Initiatives	Solicit employee input & participation on operational initiatives and action plans.
Establish a Few 'Key' Objectives	Focus on a select group of critical issues (key drivers) to improve performance.
Intensity	
Demonstrate Leadership Commitment	Stay focused on values, mission, and objectives – demonstrate commitment through word & deed.
Must 'See' the Value of Strategic Planning	Leadership must believe (know) that strategic planning has value (benefit) to the organization.
Strategic Planning is Continuous	It's a journey, not a destination – always working and refining the strategic plan.
Integration	
Communicate Openly and Often	Communicate openly & often to facilitate input, buy-in, support, critique, and feedback.
Strategy Influences Tactical Action	The firm's tactical & functional planning and actions are linked to strategic objectives.
Strategy Influences Structure	Organize, staff, and train for long-term objectives, not just short-term needs.
Action Consistent With Objectives	Action is the operative word – action consistent with values, mission, & strategy.
Cultivate Organizational Responsibility for Action	Don't dictate 'means and methods' – involve functional managers & operational personnel.
Link Management Rewards to Strategic Objectives	Involve management and link their rewards to performance on strategic initiatives.
Monitor and Update Frequently	Keep the strategic plan 'in front' of management and the entire organization - make it a 'live', working document.

9.6 PLANNING TRILOGY AND BEST PRACTICES

The preceding section presented the best practices that emerged from the data and organized these themes as sub-categories of the constructs utilized by this study to characterize strategic planning – *flow, formality, participation, comprehensiveness, intensity, and integration*. Use of the selected

categories, or constructs (flow through integration), facilitated an investigation of the planning process that went beyond the traditional approach of 'what' was being done, to include 'how' the participants' strategic plans were formulated and implemented. While the conceptualized categories serve to illuminate the planning process, they can be difficult concepts to grasp for application and/or extension of this study. Typically strategic planning has been represented as an iterative process with three main, or traditional, 'categories' or process groupings – plan development, plan implementation, and plan control/monitoring or environmental assessment (Mintzburg, 1994; Wheelen and Hunger , 1998; Macmillian and Tampoe, 2000). Conceptually, each of the subcategories of the best practices tabulated in Table 9.5.2 is also associated with one, or more, of the 'traditional' planning categories.

Environmental assessment is often purported to be the initial step of the strategic planning process (Macmillian and Tampoe, 2000). This element of the process entails an assessment of the firm's internal and external environment to identify organizational strengths and weaknesses as well as environmental threats and opportunities – the traditional SWOT analysis. The subcategories and themes that emerged from the qualitative data associated with environmental assessment are shown in Figure 9.6.1 – *Environmental Assessment Themes*. The emergent themes support that assessment should be continual and comprehensive with performance indicators regularly and openly communicated throughout the organization. The firm must cultivate environmental awareness and solicit input from clients, delivery partners, and employees to improve understanding, evaluate performance, and refine/establish strategic objectives.

Figure 9.6.1
Environmental Assessment Themes

Themes Associated with Environmental Assessment	Planning Characteristics / Themes
	♦ Continual Assessment is Key
	♦ Cultivate Environmental Awareness
	♦ Continually Seek Client Feedback
	♦ Understand the Client's Value Chain
	♦ Solicit Input from Delivery 'Partners'
	♦ Evaluate Your Competition, but Know your Customers
	♦ Communicate Performance Indicators
	♦ Assess Performance by Niche(s) and Operational Approach
	♦ Seek Employee Assessment of Strategic Initiatives

The second element of the strategic planning trilogy is plan formulation, or development, which is a process of explicitly developing the strategic intent of the organization. The development process traditionally involves the formulation of organizational mission and vision, evaluation of strategic alternatives, and the establishment of strategic intent (Dess and Lumpkin, 2002).

The emergent themes associated with strategic plan development are tabulated in Figure 9.6.2 – *Plan Development Themes*. The best practices themes associated with development include the proper preparation of the planning participants and the selection of a planning site conducive for plan development. Sufficient time and resources must be allocated to the planning process and an agenda needs be established with a degree of flexibility to facilitate creative thought. To expand the core planning group's perspective the planning team should have functional diversity and to improve planning effectiveness a knowledgeable and experienced facilitator should be involved. The top performers focus on plan outcomes rather than the planning process and they recognize that strategic planning is an iterative and continuous process. Their goal is to identify the few 'key' strategic objectives that could have a significant impact upon organizational success. Strategic plans are not documented to fulfill a bureaucratic need, but rather to permit communication and implementation.

Figure 9.6.2
Plan Development Themes

Themes Associated with Plan Development	Planning Characteristics / Themes
	♦ Prepare the Participants
	♦ Select an Appropriate Planning Site
	♦ Devote Enough Time
	♦ Establish an Agenda, but Be Flexible
	♦ Focus on Outcomes Rather than Process
	♦ Document for Communication and Implementation
	♦ Functional Diverse Planning Group
	♦ Use a 'Knowledgeable' Facilitator
	♦ Establish a Few 'Key' Objectives
	♦ Strategic Planning is Continuous

The third element of the planning trilogy is plan implementation. It is the operationalization of the firm's strategic intent (Wheelen and Hunger, 1998). Strategic plan implementation is a step

that is distinct, yet intertwined with the other two elements of the strategic planning trilogy because preparation for plan implementation is initiated during the assessment and development stage of the planning process (Macmillian and Tampoe, 2000; Dess and Lumpkin, 2002).

The emergent themes, or 'best practices' associated with plan implementation are listed in Figure 9.6.3 – *Plan Implementation Themes*. The best performers recognize that effective plan implementation requires the support and active involvement of the entire organization. To that end they communicate strategic intent openly and often and cultivate individual involvement and responsibility. Tactical actions, functional activities, targeted clients, and organizational structure are supportive of strategic intent. Management rewards are linked to strategic objectives and strategic plans are monitored and updated frequently. The best performers 'actively' implement their strategic plan – they operationalize their strategic intent.

Figure 9.6.3
Plan Implementation Themes

Themes Associated with Plan Implementation	Planning Characteristic / Theme
	♦ Involve the Entire Organization
	♦ Systematically Target Clients
	♦ Communicate Openly and Often
	♦ Strategy Influences Tactical Action
	♦ Strategy Influences Structure
	♦ Action Consistent With Objectives
	♦ Cultivate Organizational Responsibility for Action
	♦ Link Management Rewards to Strategic Objectives
	♦ Monitor and Update Frequently

The remaining *general* theme that emerged from the data was the fundamental role of the organization's leader – the President/CEO. His/her leadership and involvement in all phases of the assessment, development, and implementation process was a consistent element of the planning process for the best performing firms. The President/CEO was the 'key' strategist – a filter and catalyst for strategic initiatives. Leadership believed in the value of strategic planning and professed that the process was crucial for the organization's success. The President/CEO's commitment to the strategic planning process was strong and continually demonstrated to the organization.

A graphical representation of the themes associated with each element of the planning trilogy and the overriding influence of organizational leadership is depicted in Figure 9.6.4 – *Strategic Planning Trilogy.* This model aligns the best practices identified in this study with the traditional planning trilogy.

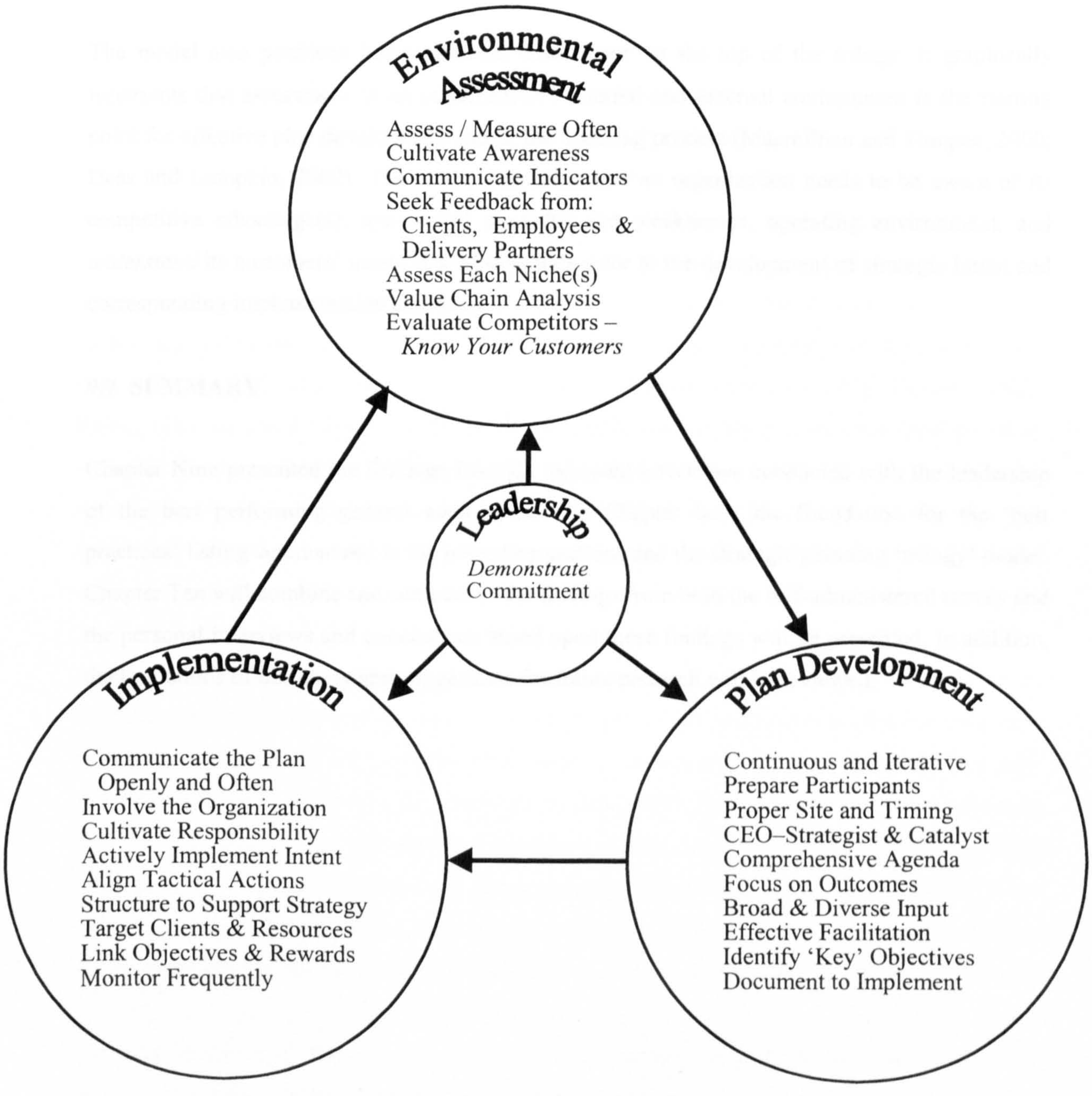


Figure 9.6.4
Strategic Planning Trilogy

This model graphically reinforces two general propositions supported by the research data and repeatedly purported by planning scholars (Steiner, 1979; Mintzburg, 1994; Wheelen and Hunger,

1998; Macmillian and Tampoe, 2000; Dess and Lumpkin, 2002). These two overriding principles are that: 1) strategic planning is an iterative process, and 2) leadership commitment is essential. Strategic planning is not a static effort to be conducted every year or two, but rather a dynamic and living process. It is a process that must have active leadership involvement and support – leadership that actively *demonstrates* its commitment.

The model also positions 'environmental assessment' at the top of the trilogy. It graphically represents that assessment of an organization's internal and external environment is the starting point for effective plan development and/or the updating process (Macmillian and Tampoe, 2000; Dess and Lumpkin, 2002). The model reinforces that an organization needs to be aware of its competitive advantage(s), operational strengths and weaknesses, operating environment, and *understand* its customers' needs and expectations prior to the development of strategic intent and corresponding implementation activities.

9.7 SUMMARY

Chapter Nine presented the findings from the personal interviews conducted with the leadership of the best performing general contractors. The Chapter built the foundation for the 'best practices' listing summarized in the preceding sections and the strategic planning 'trilogy' model. Chapter Ten will combine and summarize the findings from both the self-administered survey and the personal interviews and conclusions based upon these findings will be presented. In addition, the limitations of this study and suggestions for future research will be reviewed.

CHAPTER TEN:

CONCLUSIONS

10.1 INTRODUCTION

Over the past three decades strategic planning has evolved conceptually from long-range planning to strategic planning. During this period, long-term planning has progressed from a planning approach that was largely a corporate staff-driven exercise to one that involves numerous participates from multiple levels of the organization. It has evolved from an exercise predicting future performance through an extrapolation of past results to a comprehensive effort evaluating present and anticipated environmental conditions in an attempt to develop strategic intent, and implement strategic objectives, to optimize firm performance (Wilson, 1994; Grinyer, 1980; Porter, 1987; Dess and Lumpkin, 2002). The concept has moved beyond the creation of an initial strategic plan to an expanded focus on the development of tactical plans that guide day-to-day actions for implementation, evaluation, and control. It has matured to a planning and implementation effort requiring leadership support and a significant commitment of time and organizational resources (Wheelen, 1998; Macmillian et. al., 2000).

Strategic planning often involves organizational action necessitating expenditure of resources in the near-term for anticipated long-term gain, or a tradeoff of short-term profits for long-term financial performance (Porter, 1987). While there is widespread use and support of long-term strategic planning in industry – does strategic planning pay? This question, and the relationship between strategic planning and organizational performance, has been investigated for better than three decades. Numerous studies have been conducted involving a variety of industries. When viewed individually, or in the aggregate, they have often yielded tentative and/or inconclusive results regarding the planning-performance relationship (Greenley, 1986).

Empirical evidence on the use and best practices of strategic planning for contractors is sparse because most studies have involved predominately large manufacturing firms (Weston, 1996). Construction companies have rarely been included in previous research samples, and studies investigating strategic planning exclusively in the construction industry have been limited. They have included studies of plan formulation (Edum-Fotwe et. al., 1994), organizational 'factors' contributing to success (Konchar and Sanvido, 1999), strategic management for AEC firms (Chinowsky, 2000) and subjective evaluation of the planning-performance relationship (Pienaar,

1988). In the aggregate, there is a very limited empirical base for a planning-performance relationship or a foundation establishing 'best practices' in the construction industry.

To bridge this knowledge gap and provide a 'path' forward, this study examined the planning-performance relationship of large general builders and identified the planning practices of the best performers – 'strategic planning best practices'. Data relating to strategy development, plan implementation, and organizational performance was collected from firms in the construction industry via a self-administered survey and subsequently personal interviews were conducted with the best performers identified from the survey data. To mitigate the impact of major variables that could influence the planning-performance relationship or planning practices, the population of contractors selected for this study was restricted relative to firm size, geographical location, construction type, and contracting method. The conclusions supported by the data are presented in the following sections of this chapter. In addition, the limitations of this study and suggestions for future research are reviewed.

10.2 STRATEGIC PLANNING USE

Similar to the findings of Hillebrandt and Cannon (1990), Hasso (1996), and Chinowsky (2000) this study found widespread use of strategic planning by large firms in the construction industry. However, strategic planning is a relatively new practice for large general contractors in the US. In 1980 only one in twelve practiced strategic planning and as of 1990 only thirty-seven percent (37%) had developed strategic plans. Even as recent as 2000, more than one quarter of all large general contractors still had not adopted a strategic planning process – some with annual revenue in excess of five-hundred million dollars.

While a substantial majority of large general contractors develop strategic plans, the average firm has only a decade of experience with their strategic planning and implementation process. Since planning proficiency takes practice (Brews and Hunt, 1999), the industry's limited experience with strategic planning may partially explain the lack of planning sophistication and effectiveness of construction firms that has been identified in previous studies (Weston, 1996; Hillebrandt and Cannon, 1990; Hasso, 1996; Chinowsky, 2000).

This research effort also found support for a relationship between strategic planning and firm size. Similar to the findings of Pienaar (1988), Weston (1996), and Chinowsky (2000) the research data supports the conclusion that larger firms are more likely to develop strategic plans. Larger general contracting firms have larger organizations and their operations are more likely to be

geographically dispersed. These organizational factors encourage a more formal and documented planning process to coordinate and communicate the long-term objectives of the firm.

10.3 ENVIRONMENTAL PERSPECTIVE AND COMPETITIVE STRATEGY

During the time period of this study the US economy, and the construction industry, have experienced consistent growth in all regions of the country. In spite of this economic growth, and the correlating expansion of new work opportunities, the industry remained very competitive requiring contractors to alter competitive practices in response to ever-changing client demands. Overall, despite these unstable environmental variables, both planners and non-planners viewed their operating environment as having only a slight degree of instability. The research findings support Junnonen's (1998) assertion that participants view the construction industry as a mature, mildly unstable, and highly competitive industry with a comparatively well-known and established technology. In addition, strategic planning did not appear to alter this perception. Planners and non-planners had essentially the same environmental perspective.

Large general builders were also found to formulate strategy incrementally. Consistent with the findings of Chinowsky (2001), the foundation of strategic intent is established by numerous decisions made in the past. Contractors develop and pursue strategic objectives through an incremental adjustment of past strategic initiatives. Additionally, project selection is significantly influenced by organizational strength and strategic intent.

Consistent with the economic climate in the US during the study, the vast majority of large general builders (both planners and non-planners) were pursuing a strategy of growth. While there was no distinction in the generic directional strategy between planners and non-planners, there were differences in their approach to their growth objectives. Large builders developing strategic plans were more likely to compete for new work based upon the quality of service they provided, or the overall value perceived by the client. Consistent with the concept of strategic planning, firms that developed strategic plans were more likely to purposefully identify and pursue clients, and new work, that was aligned with their long-term objectives. Conversely, non-planners were more likely to compete solely on 'low price'.

However, any conclusions with regard to growth strategy, environmental perception, and competitive strategy must be tempered by the relationship between these variables and the overall economy. The economic climate in the US during the time period of the study exhibited consistent growth and was an environment supportive of a competitive strategy rooted in the quality of service provided (value) rather than one based solely upon low price. New work

opportunities were expanding, thereby providing contractors the flexibility to be more selective with regard to the work that they pursued.

10.4 STRATEGIC PLANNING AND PERFORMANCE

The design of this research effort facilitated an evaluation of the performance of planners and non-planners as well as an examination of the variables used to conceptualize the process of strategic planning and the relationship with organizational performance. A firm's approach to the process of strategic planning was examined based upon the conceptualized variables of planning flow, formality, comprehensiveness, participation, intensity, and integration. Performance was evaluated using both subjective and empirical data with the quantitative measurement of performance including both return-on-investment and revenue growth.

The findings were that revenue growth is not a discriminating measurement for organizational performance. There were virtually no statistically significant differences between planners and non-planners regarding the constructs measuring planning approach and firm performance, as measured by revenue growth. Intuitively, contractors did not need to adopt a particular planning process or develop a strategic plan to increase revenue – only the desire, financial ability, and competitive pricing. The survey data did not support the proposition of Pearce and Robinson (1985) and Cook (1988). There was no linkage between financial performance and revenue growth.

In contrast, return-on-investment was found to be a discerning measurement of firm performance. It was a financial measurement that provided distinction between planners and non-planners relative to the planning-performance relationship. The usefulness of this measure of financial performance correlates with Ramsay's (1989) assertion that the primary purpose of organizational strategy is to achieve competitive advantage leading to improved financial performance. And one of the most comprehensive risk adjusted measurements of financial performance is return-on-investment (Jackson, 1999b). Therefore, due to the findings concerning these two performance measures, any reference to firm 'performance' in the sections that follow are regarding performance as measured by return-on-investment.

10.4.1 Planners vs Non-Planners

One of the more significant conclusions supported by this research data is that strategic planning improves firm performance. Large general builders that developed strategic plans had a higher percentage average annual rate of return-on-investment (ROI) than firms that did not develop

strategic plans. The strength of the planning-performance relationship is confirmed by statistical testing with up to a .01 level of significance and empirical performance data over a five-year period. Planners' average annual ROI over a five-year period was more that one-third higher than non-planners and this difference was statistically significant – planners outperformed non-planners

To evaluate the significance of this conclusion it must be placed in the context of previous research efforts investigating the planning-performance relationship. Of the twenty-three empirical studies noted in Table 5.3.1, only nine accounted for the intervening variables of industry and firm size. Four (4) of those studies had an extremely small sample size (< 15) or a limited performance time period (3 years or less). Two studies classified planners based solely upon the degree of planning formality. One study (Kallman & Shapiro, 1978) recognized that the industry selected for the research effort was heavily regulated and not a proper candidate for investigation of a planning-performance relationship. The two (2) remaining studies (Wood & LaForge, 1979; Bracker et.al, 1988) had varying results. One found a positive relationship while the other had 'mixed' results. In addition, both of these studies had a sample size less than half this research effort. Methodological rigor, and support for a planning-performance relationship, is weak.

In contrast to many of these previous studies this effort utilized a research design that addressed the methodological deficiencies of prior efforts. The design considered and accommodated variables that have been shown to have an influence on organizational performance. Sample size was expanded and thoroughly evaluated to ensure it was representative of the population and statistical testing was performed at a higher level of significance. Compared to previous efforts investigating the planning-performance relationship, the finding of this research effort should be considered substantial and significant.

10.4.2 Planning Approach and Firm Performance

Similar to Segars (1994) and Papke-Shields (1997), the process of strategy development and implementation was conceptualized using the variables of planning flow, formality, comprehensiveness, participation, intensity, and integration. Relationships between each of these variables and performance were hypothesized. To evaluate possible linkage, the planning process of strategic planners with the best performance (top 20%) was compared with that of the strategic planners with the worst performance (bottom 20%). These two groups were evaluated to ensure that there was no significant difference between the best performers and the worst performers with regard to size, age, geographical location, construction type, contracting method, length of

time planning, or planning horizon. Conclusions relating to the planning process-performance relationship are strengthened by the similarity of the two groups regarding variables that could moderate the relationship.

Planning Flow

Planning flow identifies the level of management or operational personnel within the firm that has the responsibility and authority for plan development and implementation. Additionally, it measures the direction of these initiatives. Based on the data collected, the strategic planning flow for all large general builders can be characterized as 'top-down' and there was no significant difference in flow between the top performers and the poorest performers.

A number of variables present in the industry may account for this result, including a) the relative stability of the industry during the period under study, b) the entrepreneurial environment of the industry, c) the fact that most of the firms are privately held with ownership investment at risk, and d) compared to other industries the average size of even large contractors is small. While scholars submit that a 'bottom-up' planning approach is more appropriate for contractors (Junnonen, 1998), the industry does not typically adopt that approach. Large builders have generally adopted an approach where senior management develops strategy and establishes organizational goals. These findings are similar to those of Langford and Male who noted that construction companies often develop and implement strategy that is largely based upon the experiences of senior management and/or the intuition of the CEO/president (1991). Apparently contractors support Steiner's (1979) assertion that top-down planning leads to superior performance.

Planning Formality

Planning formality is a construct used to define the structure and documentation of the strategy development and implementation process. Several studies investigated the relationship between planning formality and firm performance (Thune & House, 1970; Herold, 1972; Krager & Malik, 1975, Robinson & Pearce, 1983; Rubinstein, 1996). Although their results were mixed, the conclusions reached were generally favorable for a planning formality-performance relationship. A position not supported by this present study.

This study found that larger general builders generally have formally documented missions, objectives, and action plans but typically do not have extensive written guidelines to structure the planning process – and more significantly, there is no relationship between planning formality and organizational performance. Rather, the data supports a positive relationship between planning formality and firm size. Larger firms have a more formal planning and implementation process.

Factors that may support this size-formality linkage are; 1) larger firms have more individuals and groups to coordinate, and 2) operations are generally more dispersed. Both of these variables would encourage a more formalized and/or standardized planning process and modes of communication.

Planning Participation

The construct of strategic planning participation addresses the number and diversity of participants, the degree of their involvement, and the quality of coordination and communication amongst the parties. While past studies have provided support for a positive relationship between planning participation and organizational performance (Krager and Malik, 1975; Hreiniak and Snow, 1982; Dess, 1987; Papke-Shields, 1997), their findings are not supported by this research effort. Regardless of firm performance, large general builders perceive that their planning process involves a high degree of organizational participation. There was no significant relationship between planning participation and firm performance. Additionally, there was no linkage between planning participation and organizational size.

Planning Comprehensiveness

Planning comprehensiveness conceptually measures the breadth and depth of a firm's strategy development and implementation effort. Previous studies evaluating this construct have provided varying results. The findings of this study suggest that large general builders perform a narrow investigation of their operating environment and typically develop and investigate a limited number of strategic alternatives. In general, their strategic planning effort could be characterized as having a low to moderate degree of planning 'comprehensiveness'. Additionally, the breadth and depth of the planning effort for both the poorest performers and the top performers was similar. As a result there was no relationship between comprehensiveness and performance.

However, there was limited support for a relationship between 'comprehensiveness' and formality. Planning comprehensiveness was positively associated with planning structure and documentation. A higher degree of comprehensiveness was associated with a higher level of planning formality. Planning structure and documentation encourage, or facilitate, a more comprehensive planning effort.

Planning Intensity

Planning intensity relates to planning frequency, planning horizon, resource commitments to the planning effort, and management commitment to the strategy development and implementation process. The hypothesized relationship between planning intensity and performance was supported – firms with a higher level of planning intensity have higher performance. Top

performers devoted more time and resources to the strategic planning effort, were more committed to the process, and updated their plans more frequently. Similar to the conclusions of Papke-Shields (1997), higher levels of planning intensity resulted in improved organizational success.

In addition to the intensity-performance relationship, there was an association between planning intensity and formality. Planning structure and documentation had a positive relationship with planning commitment – increased formality was associated with heightened intensity. A heightened organizational intensity, or commitment, to strategy development and implementation improves financial performance. And one measure of top management's commitment is the level of structure and guidance (formality) that is provided for the strategy development and implementation process.

As expected, because of the previously noted relationship between organizational size and formality, planning intensity was also related to firm size. Larger firms have a higher degree of formality and tend to have a more intense planning effort.

Plan Integration

One of the more significant findings of this research effort concerns the linkage between plan integration and performance. Plan 'integration' is a measure of the 'operationalization' of an organization's strategic plan. It is an appraisal of plan communication, the development and implementation of action plans and programs, allocation of resources, the influence of strategy on project selection, monitoring and control activities, and the linkage between strategic objectives and managerial compensation. Plan integration is a process of aligning the near-term actions of the organization with its long-term strategic intent.

The hypothesized relationship between plan integration and firm performance was strongly supported. Top performers more highly integrated their strategic plan(s) and the degree of plan integration was found to be a significant determinate of financial performance. Even exceptional strategic plans are ineffective unless acted upon. "Strategy, regardless of how elegantly conceived, how comprehensive its scope, or how forward-looking its thrust, does not provide competitive advantage until it is communicated, understood, valued and acted upon by a variety of key corporate stakeholders" (Higgins, 1996:XIX). Contractors that fully integrate, or operationalize, their strategic intent and objectives through near-term decisions and organizational actions achieve superior financial results.

10.4.3 Planning – Performance Summary

Strategic planning has a positive relationship with firm performance. Large general builders that develop strategic plans have a significantly higher percentage return-on-investment than firms that do not develop strategic plans.

A summary of the conclusions reached concerning the relationships between the planning constructs used to conceptually define strategic planning and their relationship with contractor performance yields mixed results. Planning constructs that exhibit no relationship with organizational performance are flow, formality, participation, and comprehensiveness. Conversely, planning intensity and plan integration have a relationship with firm performance.

For larger general builders, planning flow does not have a relationship with performance primarily because flow is typically top-down, regardless of firm size or financial performance. Company leadership typically assumes a central role in strategy development and plan implementation. Planning formality is associated with firm size and not organizational performance – larger firms have a more formal approach. Planning participation is perceived as high by most members of the sample population and as a result was found to not be a discriminating measurement for planning effectiveness. Large general builders have a low to moderate level of planning comprehensiveness and there is no relationship between this construct and firm performance. However, comprehensiveness is related to organizational size – larger firms have a more comprehensive planning process.

Planning intensity has a relationship with organizational performance – higher commitment (intensity) leads to improved financial results. The strongest planning construct-performance relationship exists between plan integration and performance. Firms that 'operationalize' their strategic plans have improved financial performance.

In summary, large generals builders that have a high level of commitment to the planning process, and subsequently implement their strategic intent via near-term plans, decisions, and actions of individuals throughout the organization have superior financial results. Strategy development and plan implementation have a positive relationship with financial performance.

10.5 PERFORMANCE PERCEPTION

The survey respondents were asked to provide their subjective assessment of both the effectiveness of their planning effort and firm performance. The concept of planning effectiveness

was an assessment of the contribution that strategic planning made toward the organization's analysis and understanding of its operating environment. It also evaluates the perceived improvement in the firm's capabilities facilitated by the planning effort. Performance measurements focused on their financial performance relative to their competitors. In both cases, the respondents were asked to provide their assessment based upon their perception of organizational success, rather than input based upon empirical data.

For decades scholars have been expounding upon the benefits of strategic planning. But is perceived planning effectiveness associated with improved organizational performance? To investigate that question, perceived planning effectiveness was evaluated relative to actual firm performance. The findings support a positive relationship between perceived planning effectiveness and financial performance. Large general builders that perceived their planning process as more effective had better financial performance. Conversely, contractors that saw their planning process as ineffective had lower performance. Contrary to Leontiades & Tezel (1980) and Rhyne (1986), perception of planning effectiveness was supported by empirical performance data. Considering that planning intensity (commitment) has a positive relationship with organizational performance, a relationship between perceived effectiveness and performance would be a logical association. Those organizations that have a strong commitment to the planning process would likely have a higher assessment of its effectiveness.

While respondents had an opinion of planning effectiveness closely aligned with actual performance, their perception of the financial performance of their firm relative to their competitors was not supported by objective performance data. Contractors consistently overrated their relative performance. Even poor performers viewed their relative performance as superior. This inability to properly assess their performance did not affect the significant findings of this research effort, but only because objective performance data was also collected to support any conclusions drawn. However, the inaccurate respondent perception identified by this study should cast doubt on any conclusions reached by studies that rely solely on this type of subjective performance assessment.

10.6 BEST PRACTICES

To facilitate a better understanding of contractor strategy, and its development and implementation, personal interviews were conducted with the leadership of the best performing 'planners'. Firms with the highest ROI over a five-year period were identified from the data supplied by the respondents from the self-administered survey. The objective of the personal interviews was to identify the strategic planning practices of the top performing firms with an

ultimate goal of developing a listing of 'best practices'. Twenty-five (25) of the top performers participated in the interview process. Leadership for each firm provided additional insight into their company's history and organization, market focus and generic strategy, their strategy development and implementation process, and the influence that strategic planning had on organizational success.

10.6.1 Generic Strategy

Participants were asked on the survey and again during the personal interview to provide basic 'background' information concerning their generic competitive strategy. Data from the self-administered survey revealed a limited degree of similarity in the strategic approach of the top performers. However, during the personal interviews conducted with the company leaders it became apparent this similarity had a broad base.

All of the best performers pursued a 'generic' competitive strategy of differentiation with a niche focus. They attempted to differentiate their organization through the development of expertise in a limited number of market niches. They elected to compete based upon providing customer value, rather than low price. In concert with this competitive approach, they cultivated an intense organizational focus on customer satisfaction. The best performers sought to exceed client expectations – strived to delight and amaze their customers. To accomplish that objective they recognized a need to identify, attract, retain, and develop the best, or even 'great' talent and create an environment to facilitate development and fulfillment of their employees. The best continuously strive for operational excellence and seek to align company mission with organizational strategy. Consistently, the mission and competitive strategy of the best performers revolved around three core elements – customer satisfaction, employee opportunity and fulfillment, and operational excellence.

10.6.2 Strategic Planning Best Practices

The *flow* of the strategic planning process of the best performers could be characterized as 'top down'. The company President/CEO (CEO) assumes a primary role in the development and implementation of strategic intent. He/she solicits input from a wide spectrum of organizational personnel, but is considered the 'key' strategist for the firm. The CEO serves as a 'filter' for strategy selection and acts as a catalyst to initiate organizational 'thought' and action.

Planning *formality* is not a key objective or planning practice. The best performers have an informal, but structured, planning process. They have minimal bureaucratic and administrative

requirements, but interject structure into their planning process to promote preparedness, enhance effective utilization of time, and improve planning results. They focus on achieving planning 'outcomes', rather than on planning process. However, the outcomes are documented to facilitate communication of the plan and provide a 'baseline' to aid implementation and measure progress.

Key management personnel are the primary 'core' *participants*, but the leadership solicits broad organizational input and evaluation. The top performers have a core planning group that generally comprises eight to twelve people. The core group's membership typically includes key management from each department and operating unit of the company. They assemble the planning group to ensure that a wide spectrum of business and operational knowledge is brought to the planning process. A knowledgeable facilitator is often involved to improve process management, enhance planning discipline, and provide 'objective' third party insight. Prior to, and during the planning period, input is solicited from the entire organization on issues vital to the strategy development process. The core group actively seeks employees' perception of organizational strengths and weaknesses as well as their vantage point concerning environmental threats and opportunities. Leadership involves the 'entire' organization in strategy development to facilitate the organizational support needed for implementation.

The top performers have developed a *comprehensive* planning process. They address the 'traditional' strategic planning elements of: a) situation analysis of the current and anticipated operating environment (both internal and external), b) brainstorming of the key strategic issue(s) facing the organization, c) discussion and agreement on organizational values and mission, d) evaluation and establishment of global objectives and organizational strategies, e) development of tactics and actions plans, and f) implementation and follow-up. However, they are passionate about market focus/knowledge, assessment, and performance measurement.

The best performers submit that 'objective' measurement and assessment is key for plan development and effective implementation. They believe that financial performance is paramount, but think financial objectives do little to guide action. Rather, the best focus on a select group of critical issues and strategic initiatives that can have a substantial impact on financial performance. They develop measurement indicators to evaluate their operating environment and organizational performance and regularly communicate results regarding financial and strategic objectives to the organization. They have a keen awareness and understanding of the general market and their operating environment and utilize numerous indicators to evaluate market opportunities. They analyze performance from a number of perspectives, including market niche, client, and contracting approach to provide insight for market focus and operational refinements. Armed with

this insight, the best shape customer services and contracting methods to 'win' the customer, rather than to beat a competitor.

The best performers selectively identify, evaluate, and pursue customers that were strategically important for long-term success. They strive to understand the client's business to facilitate improvement or expansion of service along the customer's value chain. Leadership is readily accessible and continuously seeking performance feedback from customers on both a formal and informal basis. In addition, they seek input and assessment from the firm's 'partners' in the delivery process.

The top performers have a high level of planning *intensity*. Leadership firmly believes that strategic planning is a process that can help the firm shape its future, rather than just react to environmental forces. They submit that strategic planning enhances strategic assessment, facilitates commitment to strategic initiatives, improves focus, and promotes organizational alignment. As a result, leadership keeps core values, mission, and strategic objectives 'front and center'. It generates organizational enthusiasm for strategy development and implementation. They believe that pursuing their vision is a journey, not a destination. They are always 'working' the strategic plan, while at the same time 'refining' and adjusting it to optimize organizational performance.

The top performers actively *integrate* and *implement* their strategic plan. They place an emphasis on action consistent with strategic objectives. Leadership supports the strategic planning process and cultivates the organizational discipline required to develop and implement the necessary response to achieve results consistent with company values, mission, and strategic intent. The firms organize, staff, and train to serve long-term strategic objectives. Plans are monitored and updated frequently. They keep the strategic plan 'in front' of management and the entire organization by making it a 'live', working document that represents the firm's long-term strategic objectives. Company leadership and function managers are intimately involved in the planning and implementation process and their performance evaluation is linked to progress toward strategic initiatives.

The best performers communicate firm strategy and objectives openly and often to facilitate buy-in and support, and obtain critique and feedback. They don't dictate the 'means and methods' of achieving strategic objectives. Rather, the top performers elect to involve functional managers and operational personnel in the development of action plans supporting the strategic intent of the organization.

10.7 STRATEGIC PLANNING TRILOGY THEMES

The preceding section of this chapter summarized the findings concerning the strategic planning process utilized by the top performing general builders. The categories used to conceptualize the strategic planning process were planning *flow, formality, comprehensiveness, participation, intensity,* and *integration*. Use of the selected categories, or constructs (flow through integration), facilitated an investigation of the planning process that went beyond planning content (steps) to include process – 'how' the participants' strategic plans were formulated and implemented. Selection of these categories, and subcategories, permitted this study to address the dimensional properties of both the planning content and the planning process. While the conceptualized categories serve to illuminate the planning process, they are not the categories *generally* utilized to characterize strategic planning.

Typically strategic planning has been represented as an iterative process with three traditional 'categories' or process groupings – plan development, plan implementation, and plan control/monitoring or environmental assessment (Mintzburg, 1994; Wheelen and Hunger , 1998; Macmillian and Tampoe, 2000). Conceptually, each of the subcategories of the best practices tabulated in Table 9.5.2 is also associated with one, or more, of the 'traditional' planning categories. The model presented in Figure 9.6.1 – *Strategic Planning Trilogy* depicts this alignment of planning themes, or best practices.

Emergent themes associated with environmental assessment are based upon the premise that assessment must be continual and comprehensive. Performance indicators should be regularly communicated and shared with the organization. The best performers actively cultivate environmental awareness. They seek input and critique from clients, delivery partners, and employees in an effort to evaluate performance, improve customer satisfaction, and refine/establish strategic objectives.

Best practices associated with plan development are based upon the precept that strategic planning is an iterative and continuous process to identify/refine the few 'key' strategic objectives that could have a significant impact upon organizational success. The best performers recognize that plan development requires adequate participant preparation and the allocation of sufficient resources to facilitate effective formulation of strategic intent. They publish an agenda to encourage preparation and provide a 'loose' planning structure, but promote flexibility, creativity, and broad participation in the development process. To expand the planning team's perspective, the core planning group is comprised of individuals representing a broad spectrum of functional responsibility from throughout the organization. An experienced and knowledgeable facilitator is

utilized to provide planning discipline and enhance the team's objectivity. The best performers focus on outcomes rather than the planning process and they document the process primarily to facilitate communication of the organization's strategic intent and to provide a vehicle for implementation and control.

The third building block of the planning trilogy is plan implementation. It is the operationalization of the firm's strategic intent (Wheelen and Hunger, 1998). Active involvement of the entire organization is the foundation for the emergent themes, or 'best practices' associated with plan implementation. To facilitate participation and 'buy-in' the best performers actively communicate strategic intent and involve a broad cross-section of the organization in action plan development. They align structure, tactical actions, and organizational policies with strategic objectives. The 'best' selectively target clients and work programs to support their strategic thrust and link management rewards with progress toward their strategic objectives. They frequently monitor and update their strategic plans. The best performers 'actively' implement their strategic plan – they operationalized their strategic intent.

Underpinning the planning trilogy of assessment, development, and implementation is management commitment. The organizational leader – the President/CEO – is actively involved in all phases of the strategic planning process. The President/CEO was the 'key' strategist and a filter and/or catalyst for strategic initiatives pursued by the organization. They believe in a linkage between planning and performance and continually demonstrate their commitment to environmental assessment, strategy development, and plan implementation. The President/CEO is aggressively and enthusiastically leading the strategic planning process.

10.8 LIMITATIONS

Construction, as an industry, has a unique combination of characteristics that are not present in other industries (Hillebrandt, 1985). In addition, within the industry itself, there exist a number of different categories of firm size, construction type, and contracting method that involve significant differences in organizational expertise, company structure, capital investment, and operating environment (Maloney, 1997; Male and Stocks, 1991). All of these variables have been noted to exert a moderating influence on performance. To mitigate the effect of these variables, the design of the study placed restrictions on the research population. While these restrictions improve the validity and reliability of the findings, they also exert a restrictive influence on the application of any conclusions.

As previously noted, this study does not attempt to measure the general construct of 'strategic management'. Rather, this research focused on strategy development and implementation. While the concept of strategic management incorporates strategic planning, it places additional emphasis on strategic thought and action. Strategic management is a process of managing strategic change on a daily basis by thinking and acting strategically (Wheelen, 1998; Chinowsky, 2001) – a concept that is difficult to effectively evaluate.

Several of the constructs used to define strategic planning were not found to have a relationship with performance (flow, formality, participation, and comprehensiveness). In some cases, these findings are in conflict with conclusions reached by previous researchers. While the validity and reliability of the measurements for these variables were established by the previous work of Segars (1994) and Papke-Shields (1997), it is possible that these measurements are not appropriate to discriminate the planning process of general builders.

A number of studies evaluating strategic planning in other industries noted the difficulty of isolating the planning-performance relationship – primarily because of the 'management' variable. For example, Wood and LaForge (1979) tempered the conclusions of their banking study by noting that "it should not be inferred, however, that comprehensive planning is the only reason for the superior performance... . Rather, it is more likely that the managers of these banks were more progressive in many of their management practices" (p526). A number of other planning-performance studies recognized this same influence and study limitation (Rue & Fulmer, 1974; Fredrickson & Mitchell, 1984; Papke-Shields, 1997; Morgan, 1999; Pienaar, 1988). Similar restrictions would apply to the conclusions noted in this study. Contractors that successfully engage in strategic planning may possess more effective leadership that has a greater influence on performance than that of strategic planning. It may be that effective managers have better financial performance and also systematically develop and implement strategy. In other words, strategic planning may be more closely linked to successful management than organizational performance.

10.9 SUGGESTIONS FOR FUTURE RESEARCH

The time period of study for this research effort was fiscal years 1996 through 2000; a period of consistent growth in the overall US economy and the US construction industry. While the planning-performance relationship was shown to exist in a period of relative economic stability, of interest would also be the relationship during periods of economic turbulence and instability. Wong's (1985) study of the construction industry during periods of both economic expansion and contraction found that contractors could maximize profits under both demand conditions.

Similarly, Lansley & Quince's (1981) case study involving twenty-six contractors also found that firms were able to exploit opportunities in their markets even during a considerable downturn in demand. However, even if contractors can maximize profits and exploit opportunities in periods of economic contraction, does the positive planning-performance relationship still exist during periods of economic instability and/or recession? Especially in light of the assertions of Stacey (1993), Kaplan and Norton (1996), Fredrickson (1984), Quinn (1980a), and Leontiades et al. (1980) that a stable environment is essential for effective, rational strategic plan development. Therefore, it is suggested that future research efforts investigate the planning-performance relationship during a period of economic turbulence. The most recent economic contraction prior to this study was 1991-1992, but as of the early 1990's only twenty-eight percent (28%) of the population of large general builders had developed a strategic planning process. Now that the vast majority of large builders develop and implement strategic plans, future studies should investigate the planning-performance relationship subsequent to the next economic downturn or extended period of instability.

This study examined the general relationship between planning and performance. During the interview process it was discovered that best performers had similar generic strategies or operational thrusts. They focused on customer satisfaction and competed based upon value in a limited number of market niches. While this study did not attempt to evaluate the strategy-performance relationship for the different strategic options available to a construction organization, this apparent similarity of strategic intent among the best performing general builders deserves additional investigation. For example, industry scholars and researchers assert that contractor specialization, or niche focus, is essential for competitive advantage, firm differentiation, and risk reduction (Cough and Sears, 1994; Eaton, 1999; Male and Stocks, 1991; Eaton 1999). However, while niche focus may enhance a firm's competitive advantage, it can also make the firm more susceptible to market shifts and economic instability (Cough and Sears, 1994). An examination of Engineering New Record's Top 400 US contractors reveals that niche focus spans the spectrum with some firms competing in multiple categories of construction while others focus only on one, or a subset of one, type of construction. Of interest would be, to what extent does continued refinement of an organization's operating niche(s) influence performance? How is relative performance affected during economic instability or recession?

Contracting method is another example of the strategic options available to an organization. This research effort utilized a general contracting classification of either 'at-risk', or 'not-at-risk. In practice, a multitude of contracting options are available. The extent to which contracting method influences financial performance would be of interest to practitioners and scholars alike. To provide insight on strategy selection, it is suggested that future research efforts consider

investigation of the relationship between firm performance and these variables, as well as others, associated with strategic choice.

With the expanding use of strategic planning it would be appropriate for future research efforts to consider investigating the planning-performance relationship with both smaller contractors and contractors operating in different construction markets or categories. A practice that this study found to be associated with higher financial performance for large general builders may yield similar results for smaller firms as well as those firms with different construction expertise and contracting type.

Future research efforts providing insight on these noted areas of study could be of benefit to researchers, scholars, and practitioners alike. They would expand the industry's understanding regarding the influence of strategy development, strategic choice, and strategy implementation on organizational performance. These efforts would expand the knowledge base and could favorably impact the long-term performance of individual construction organizations and the overall construction industry.

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Appendix A – New Work

US New Work Categories as a Percentage of Total New Work										
Construction Type	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**9 yr Ave.**
Total Construction	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
Private	**75.6%**	**72.5%**	**74.4%**	**75.8%**	**76.9%**	**75.8%**	**77.0%**	**76.9%**	**78.2%**	**75.9%**
Residential	41.4	39.4	41.5	44.0	46.0	42.9	44.0	43.0	44.2	42.9
New Single	24.6	23.8	25.8	27.8	29.6	27.0	27.3	26.6	28.5	26.8
New Multi	4.4	3.8	2.9	2.3	2.7	3.3	3.5	3.7	3.7	3.4
Improvem'ts	12.4	11.8	12.9	13.9	13.7	12.6	13.2	12.7	12.1	12.8
Non-Res Blgs.	26.7	24.4	23.4	23.1	23.2	25.1	25.8	27.1	27.3	25.1
Industrial	5.4	5.6	6.4	5.5	5.6	6.0	5.6	5.1	4.8	5.6
Office	6.5	5.7	4.5	4.4	4.3	4.8	4.8	5.5	6.2	5.2
Hotel	2.2	1.6	0.8	1.0	0.9	1.3	1.9	2.1	2.2	1.5
Other Comm.	7.7	6.4	6.5	6.8	7.2	7.9	8.3	8.4	8.1	7.5
Religious	0.8	0.9	0.8	0.8	0.7	0.8	0.8	0.9	1.0	0.8
Education	1.0	1.0	1.0	1.0	0.9	1.0	1.2	1.4	1.4	1.1
Hosp./Insti.	2.1	2.3	2.5	2.6	2.4	2.1	2.0	2.2	2.1	2.3
Misc (1)	1.0	1.1	0.9	1.1	1.2	1.1	1.3	1.5	1.4	1.2
Farm Non-Res.	0.6	0.6	0.5	0.7	0.6	0.6	0.6	0.6	0.6	0.6
Public Utilities	6.3	7.3	8.1	7.3	6.6	6.7	6.2	5.7	5.6	6.6
Telecomm.	2.2	2.2	2.0	2.0	1.9	2.1	2.0	1.9	1.9	2.0
Railroads	0.5	0.7	0.6	0.6	0.6	0.7	0.8	0.8	0.8	0.7
Electric	2.4	2.7	3.8	3.3	2.9	2.6	1.9	1.8	1.7	2.6
Gas	1.1	1.6	1.5	1.2	0.9	1.2	1.3	1.1	1.0	1.2
Petro Pipeline	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
All Other (2)	0.7	0.8	0.8	0.7	0.6	0.5	0.4	0.4	0.4	0.6
Private	**24.4%**	**27.5%**	**25.6%**	**24.2%**	**23.1%**	**24.2%**	**23.0%**	**23.1%**	**21.8%**	**24.1%**
Buildings	10.5	12.6	11.1	10.1	9.5	10.7	10.3	10.3	9.9	10.6
Housing	0.8	0.9	0.9	0.8	0.7	0.9	0.7	0.6	0.6	0.8
Industrial	0.3	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.3
Education	4.7	5.9	4.6	4.0	3.9	4.8	4.7	4.7	4.5	4.6
Hospital	0.6	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.6	0.7
Other (3)	4.0	4.7	4.4	4.2	3.8	4.0	3.9	4.0	4.1	4.1
Hwy/Streets	7.0	7.5	7.3	7.2	7.2	7.0	6.8	7.2	6.7	7.1
Military	0.6	0.5	0.6	0.5	0.4	0.6	0.4	0.4	0.4	0.5
Conservation	1.0	1.2	1.3	1.2	1.2	1.2	1.0	0.9	0.8	1.1
Sewer	2.2	2.5	2.1	1.9	1.7	1.6	1.6	1.5	1.3	108
Water	1.1	1.2	1.1	1.1	0.9	0.9	0.9	0.9	0.9	1.0
Misc. (4)	1.9	2.0	2.1	2.2	2.2	2.3	2.0	2.0	1.8	2.1

(1) Includes amusement & recreational, bus & airline terminals, animal hospitals & shelters, etc.
(2) Includes privately owned streets, bridges, parking, sewer/water, parks, golf courses, airfields, etc.
(3) Includes general administration buildings, prisons, police & fire stations, courthouses, civic centers, passenger terminals, NASA, and postal facilities.
(4) Includes open amusement & recreation, power generation, transit systems, airfields, open parking facilities, etc.

Appendix B – Survey Instrument Cover Letter

May 30, 2001

«PREFIX». «FIRSTNAME» «MI» «LAST_NAME» «SUFFIX», «TITLE»
«COMPANY»
«ADDRESS»
«CITY», «ST» «ZIP»

Dear «PREFIX». «LAST_NAME» «SUFFIX»,

A major challenge for construction executives continues to be the strategic positioning of their firm for success in a rapidly changing and increasingly competitive environment. However, little is known concerning the strategic planning and implementation methods used by contractors, and more importantly, which approaches are most successful. Would additional insight improve your firm's performance?

I am a member of the faculty in the Department of Construction Science and Management at Clemson University in South Carolina. Concurrently, I am also pursuing a doctorate degree from Heriot-Watt University. As part of the requirements for my degree program, I am conducting a formal study designed to investigate the methods used by contractors in the US to develop and implement business strategy. The objectives of this study are to:

- Determine which strategic planning and implementation techniques are most effective.
- Provide insight for construction executives seeking to develop, or improve, their strategic planning and implementation process.

However, for my research to be successful, *I need your help*! Included with this letter is a questionnaire developed to provide the necessary insight concerning your firm's approach. It also requests limited performance data to permit comparative analysis. The survey is very straightforward and should take no more than 15 minutes of your time. At your earliest convenience (prior to July 6, 2001) please complete the survey and return it in the postage-paid, self-addressed envelope provided. As an expression of my gratitude for your participation you will be provided a summary of the study's findings along with an individualized company profile and comparative analysis of your firm's approach.

Please be assured that your response will be held in strictest confidence. Under no circumstances will results specific to your firm be made available to any individual or organization. Again, your participation is crucial to the success of this effort. Therefore, I thank you in advance for your support and cooperation.

Respectfully requested,

Dennis C. Bausman
PhD Candidate

Appendix B – Survey Instrument

Strategy Formulation & Implementation Questionnaire

Section I: General Information About Your Firm

1. Please indicate the approximate % of your annual volume in each of the following construction 'categories'.

Residential	General Building	Industrial	Transportation	Other
_____	_____	_____	_____	_____

2. Please indicate the location (state) of your corporate offices: _____ (state)

3. Approximately how long has your firm been in business? _____ (years)

4. Which of the following geographical designations best describes your firm's *area of operation*. (Circle 1)

Global	National	Regional	State-wide	Local

2. What is the approximate percentage of your volume that is contracted '*at-risk*'? ___ %
(When contracting "at-risk" the contractor is contractually liable for project cost)

Section II: General Information About Your Firm's Operating Environment

1. Please indicate the extent of your agreement with the following statements pertaining to your 'primary' operating environment.

1=strongly disagree, 2=moderately disagree, 3=slightly disagree, 4=neither, 5= slightly agree, 6= moderately agree, 7=strongly agree

	Strongly Disagree	Circle One					Strongly Agree
• Customer requirements are fairly easy to predict.	1	2	3	4	5	6	7
• Construction demand is relatively easy to forecast.	1	2	3	4	5	6	7
• The rate of product innovation is high.	1	2	3	4	5	6	7
• The services that clients demand are rapidly changing.	1	2	3	4	5	6	7
• Competition in our market(s) is intense.	1	2	3	4	5	6	7
• We rarely need to change our competitive practices.	1	2	3	4	5	6	7
• The actions of our competitors are quite easy to predict.	1	2	3	4	5	6	7
• The rate of technology change in our industry is low.	1	2	3	4	5	6	7
• It is difficult to differentiate our product and/or service.	1	2	3	4	5	6	7
• The impact of governmental regulations & policies is minimal.	1	2	3	4	5	6	7

Section III: General Information about Your Firm's Strategy

1. Which of the following 'generic' strategies best describes your company's overall strategy? (select one)

_____ a) Stability (concentration, no or minimal growth)
_____ b) Internal Growth (innovation, market and product/service development)
_____ c) External Acquisitive Growth (vertical & horizontal integration, jt. venture, acquisition)
_____ d) Retrenchment (turn-around, divestiture, liquidation)

2. Does your company have semi-autonomous strategic business units (SBU) and/or divisions? Yes
No

{For this study, a strategic business unit (SBU) is defined as a semi-autonomous division or profit center operating from a remote office, and/or a semi-autonomous business unit with a specialized product(s) or service 'niche(s)'.}

3. Please indicate the level of importance your firm attaches to each alternative in selling your primary product and/or service: (circle the appropriate response)

1=very unimportant, 2=moderately unimportant, 3=slightly unimportant, 4=neither, 5= slightly important, 6= moderately important, 7=very important

	Very Unimportant		Circle One				Very Important
• Capability to compete on low price.	1	2	3	4	5	6	7
• Ability to provide a high quality product or service.	1	2	3	4	5	6	7
• Ability to deliver service/projects quicker than your competitors.	1	2	3	4	5	6	7
• Capability to customize your products and/or services.	1	2	3	4	5	6	7
• Ability to differentiate your service or product from your	1	2	3	4	5	6	7
• Ability to improve your cost competitiveness.	1	2	3	4	5	6	7
• Expansion of your service or product offerings.	1	2	3	4	5	6	7

4. Does your firm have a strategic plan? Yes No (If No, please skip to Section V, page 4)

5. When did the company first develop a long-range strategic plan? (approx. year) _____

6. Does your firm document your long-range strategic plan(s)? Yes No

7. How many years into the future does your strategic plan(s) address? 1yr 2yrs 3yrs 5yrs Other:

8. How often is your strategic plan updated? Quarterly 6 mo. Yearly 2yrs Other___

Section IV: Information Concerning Your Strategic Planning Process

NOTE: *For questions in this section, if your firm has multiple divisions or SBU's please select the answer that best represents the plan development and implementation process of a **'typical' division or SBU** of your firm.*

1. Please indicate the extent of your agreement with the following statements concerning the *strategic planning process* in your firm.

1=strongly disagree, 2=moderately disagree, 3=slightly disagree, 4=neither agree or disagree, 5= slightly agree, 6= moderately agree, 7=strongly agree

	Strongly Disagree		Circle One				Strongly Agree
• We attempt to be exhaustive in gathering information relevant to the development of our strategic plan.	1	2	3	4	5	6	7
• Before a strategic decision is made, each possible course of action is thoroughly evaluated.	1	2	3	4	5	6	7
• Strategic plans and objectives are openly and actively communicated throughout the organization.	1	2	3	4	5	6	7
• Our strategic planning (SP) process includes numerous participants involving multiple levels of personnel throughout the organization.	1	2	3	4	5	6	7
• Our strategic planning process is very structured.	1	2	3	4	5	6	7
• Strategic objectives have a significant influence on project	1	2	3	4	5	6	7
• We perform a comprehensive evaluation of our current organizational capabilities, strengths, and weaknesses.	1	2	3	4	5	6	7
• Extensive written guidelines exist to structure the planning	1	2	3	4	5	6	7
• Strategic initiatives are frequently initiated by requests or proposals from operational or functional managers.	1	2	3	4	5	6	7
• Our mission, objectives, and action plans are formally	1	2	3	4	5	6	7
• Management frequently discusses and evaluates strategic issues.	1	2	3	4	5	6	7
• The SP flow in our organization can be characterized as 'top	1	2	3	4	5	6	7
• Considerable time and resources are devoted to the SP effort.	1	2	3	4	5	6	7
• We comprehensively track and evaluate our operating environment.	1	2	3	4	5	6	7

	Strongly Disagree		Circle One				Strongly Agree
• Resources needed for strategic objectives are identified and allocated.	1	2	3	4	5	6	7
• Corporate management is actively involved in evaluating strategic plan development and implementation.	1	2	3	4	5	6	7
• We attempt to be exhaustive in the generation and evaluation of the firm's strategic options.	1	2	3	4	5	6	7
• Development of our strategic plan involves extensive communication between planning participants.	1	2	3	4	5	6	7
• Our annual business plan is tightly integrated with, and supports, our SP.	1	2	3	4	5	6	7
• Strategic objectives generally originate at the highest levels of the company.	1	2	3	4	5	6	7
• Detailed action plans are developed for each strategic objective.	1	2	3	4	5	6	7
• Strategic initiatives are generally incremental adjustment(s) of current organizational strategy.	1	2	3	4	5	6	7
• Strategic plans are formally submitted to corporate management for review and approval.	1	2	3	4	5	6	7
• Operational policies are comprehensively evaluated to ensure alignment with strategic objectives.	1	2	3	4	5	6	7
• The primary role of corporate management is to endorse rather than formulate strategic plans.	1	2	3	4	5	6	7
• Functional managers participate extensively in the SP process.	1	2	3	4	5	6	7
• Management performance evaluation is tightly linked to progress toward achieving strategic objectives.	1	2	3	4	5	6	7
• Top-management is actively involved in strategic planning.	1	2	3	4	5	6	7
• Strategic planning is a relatively isolated organizational activity.	1	2	3	4	5	6	7
• Management is aggressively committed to the formulation and implementation of strategic plans.	1	2	3	4	5	6	7
• We frequently monitor the level of progress toward strategic plan objectives.	1	2	3	4	5	6	7

2. Please indicate the extent of your agreement with the following statements concerning the *impact* or *influence* of strategic planning in your firm.

1=strongly disagree, 2=moderately disagree, 3=slightly disagree, 4=neither agree or disagree, 5= slightly agree, 6= mod. agree, 7=strongly agree

	Strongly Disagree		Circle One				Strongly Agree
• Strategic planning (SP) enhances the organization's strategic vision.	1	2	3	4	5	6	7
• Action plans for strategic objectives are aggressively implemented.	1	2	3	4	5	6	7
• SP improves our financial performance.	1	2	3	4	5	6	7
• SP helps us anticipate changes in our operating environment.	1	2	3	4	5	6	7
• SP enhances organizational cooperation toward strategic objectives.	1	2	3	4	5	6	7
• SP significantly improves our ability to identify new strategic options.	1	2	3	4	5	6	7
• SP significantly improves our understanding of the firm's capabilities.	1	2	3	4	5	6	7
• The entire organization has a much better understanding of our 'business' because of SP.	1	2	3	4	5	6	7
• SP substantially enhances our ability to define and improve our competitive advantage.	1	2	3	4	5	6	7
• SP significantly improves our ability to identify key strategic weaknesses or problem areas within the organization.	1	2	3	4	5	6	7
• Our strategic planning process significantly enhances our understanding of the firm's competitive environment.	1	2	3	4	5	6	7

Section V: Information Concerning Your Firm's Performance

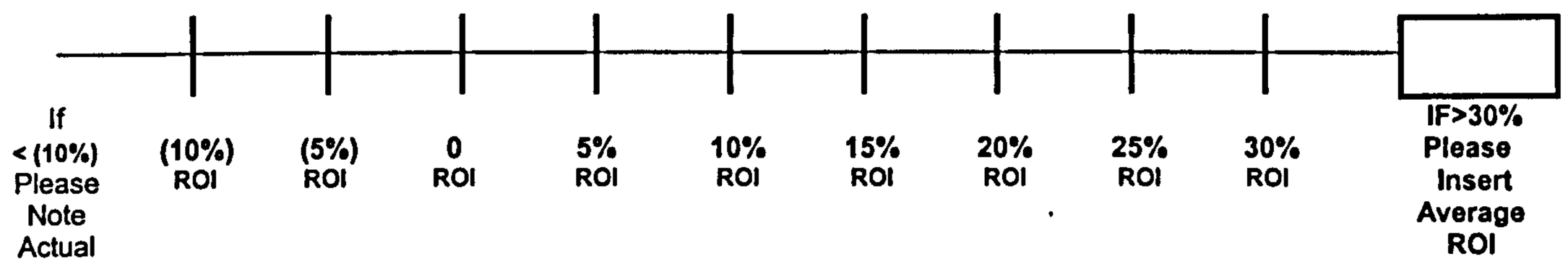
1. How do you think your firm's performance *over the past 5 years* compares to your competitors'? (circle 1)

(Your firm - compared to your competitors)

Performance Measure	Top 20%	Next 20%	Middle 20%	Lower 20%	Lowest 20%
Percentage of pretax profit (based on volume)	1	2	3	4	5
Annual revenue growth	1	2	3	4	5
Return on investment	1	2	3	4	5
Overall firm performance/success	1	2	3	4	5

2. What is your firm's *average* 'Return on Investment' (ROI) over the *past five (5) years*? (For this study, ROI is the pretax profit for the fiscal period divided by tangible net worth at the start of the fiscal period – expressed as a percentage)

Indicate your approximate average ROI% by placing an "X" at the appropriate location on the following scale.



3. Which of the following best describes the *trend* of your ROI over the *past 5 years*? (circle one)

Rapidly Declining | Declining | Erratic | Stable | Mild Growth | Moderate Growth | Strong Growth

4. What was the approximate annual volume of your firm in your fiscal year 2000? _____ (million)

5. What was the approximate annual volume of your firm 5 years ago? _____ (million)

6. Which of the following best describes the *trend* of your Annual Volume over the past 5 years? (circle 1)

Rapidly Declining | Declining | Erratic | Stable | Mild Growth | Moderate Growth | Strong Growth

Thank you for taking the time to complete this survey. I sincerely appreciate your support. Please provide your name and address, or attach your business card, if you would like your firm's profile and a comparative summary of the research results.

Name: _____

Title: _____

Company: _____

Address: _____

_____

_____

Thank you for your time and valued input

Appendix C – Pilot Instrument Critique

Evaluation and Critique of the Questionnaire and Cover Letter

To ensure comprehensive coverage of the subject matter, respondent understanding, and an adequate response rate I need your candid assessment of this survey. Thank you for taking the time to respond to the following questions. Please circle the appropriate response and provide commentary as you deem warranted.

Questionnaire Critique

1. How long did it take to complete the questionnaire? ____ minutes

2. What is your opinion of the questionnaire *length?* Too short Too Long About Right

3. What is your opinion concerning the following:

a) Questionnaire organization: Poor Satisfactory Very Good Excellent

Suggestions:_____

_____

b) Flow' of the questioning: Poor Satisfactory Very Good Excellent

Suggestions:_____

_____

c) Comprehensiveness of the questionnaire: Poor Satisfactory Very Good Excellent

Suggestions:_____

_____

d) Questionnaire format and structure: Poor Satisfactory Very Good Excellent

Suggestions:_____

_____

e) Clarity of the questions: Poor Satisfactory Very Good Excellent

(Please identify on your questionnaire any questions you think are unclear)

f) Clarity/understanding of the concepts: Poor Satisfactory Very Good Excellent

(Please Identify on your questionnaire any concepts you think need clarification)

g) Clarity and understanding of the response scale: Poor Satisfactory Very Good Excellent

h) Other Comments / Suggestions:_____

_____

_____

_____

4. Does the survey contain any questions that you think are inappropriate or too invasive concerning proprietary information? Yes No

   If yes, which questions:_____

5. Any other comments or suggestions? _____

   _____

Cover Letter Critique

What is your opinion of the *length* of the cover letter? Too short Too Long About Right

What about the *content* of the cover letter?

- Appropriateness of the information provided: Too Much Not Enough About Right
- Insight provided concerning survey purpose: Poor Satisfactory Good
- Comments/Suggestions: _____

  _____

How do you feel about the *style* and approach of the letter?

- Capture your interest? Not at All Slightly Moderately Very Effectively
- Appropriate approach? Too Personal Not Personal Enough About Right
- Comments/Suggestions: _____

  _____

What is your opinion of the *incentives* provided/offered to increase participation?

- Self-Addressed Envelope/Postage: Insulting Not Effective Helpful Very Effective
- Personalized Report: Do Not Offer Not Effective Helpful Very Effective
- Comments/Suggestions: _____

  _____

Any other general comments or suggestions on the cover letter or the questionnaire? _____

_____

_____

Thank you sincerely for your participation and support!!!

Appendix D – Follow-up Survey Request

June 15, 2001

«PREFIX». «FIRSTNAME» «MI» «LAST_NAME» «SUFFIX», «TITLE»
«COMPANY»
«ADDRESS»
«CITY», «ST» «ZIP»

Dear «PREFIX». «LAST_NAME» «SUFFIX»,

Would it be worth 15 minutes of your time to gain the strategic insight of over 100 large general contractors (and counting), some of which are most likely your direct competitors?

A couple of weeks ago I sent you, and several hundred other large general contractors, a questionnaire asking for your input on your firm's strategy formulation and implementation process. Already, over 100 general contractors have responded. If your questionnaire is not in the mail, it may be either 'deep' down on your list of things to do, or discarded because of the severe demands on your time. I am sending you this second request to ask you to reconsider your participation.

Please recall that this is a research effort to partially meet requirements for my doctoral degree, but from the start the thrust has been to design a study that could provide meaningful and practical data of value to you and your contracting organization. Its focus has been to provide insight for firm owners and managers seeking to develop, or improve, their strategic planning and implementation process.

However, your participation is needed not only to enhance the value of the study, but also to allow you access to the results and a comparative analysis of your firm if you so desire.

At your earliest convenience (prior to July 6, 2001) please complete the enclosed survey and return it in the postage-paid, self-addressed envelope provided. Please be assured that your response will be held in strictest confidence. Under no circumstances will results specific to your firm be made available to any individual or organization. Again, your participation is crucial to the success of this effort. Therefore, I thank you in advance for your support and cooperation.

Respectfully requested,

Dennis C. Bausman
PhD Candidate
Heriot-Watt University

Appendix E – Personal Interviews

Strategic Planning Interview
Questions and Topics for Discussion

Company Background

- Company history
- Ownership and organization
- Market niches / focus, typical contracting method, spectrum of services

Plan Development

General description of the strategic planning process:
- Timeframe, Participants, Resources, Corporate involvement
- General overview of steps/process for plan development.

Planning Guidelines and Criteria
- Extent of planning guidelines/standards & planning criteria (objectives)
- What portions of the plan are documented? How documented?

Mission/Vision
- Overview of mission and vision
- Who has responsibility to establish, how established, how are they communicated?

Internal & External Assessment:
- What internal & external assessment is performed?
- What kind of information is gathered? Level of detail? How gathered? How evaluated?

Strategy Selection
- Who is responsible for identification of strategic options and selection of strategy?
- How are strategic options identified and strategy selected?
- What is the role of corporate? What is the role of 'operations'?

Objectives
- Who is responsible to identify objectives? How are objectives selected?
- What is the role of corporate?
- Do objectives involve more than financial indicators? Examples?

Plan Review & Approval
- Does the SBU strategic plan need 'corporate' approval?
- Describe the review and approval process.

Plan Implementation

Plan Communication
- Original plan communicated to whom? How? How often? Level of detail?
- Plan progress communicated? What is communicated? By whom? How often?

Action Plans

- Are action plans developed for each objective? Quantity & level of detail?
- Who develops? When developed? Measurement criteria established to evaluate progress?
- How is progress monitored? (technique, frequency, responsibility)

Integration with Business Plan

- Are strategic planning objectives and action plans integrated into the business plan? How?
- How are resources identified and allocated to strategic plan objectives? How do you monitor?

Management Commitment

- How does management demonstrate its commitment to the planning process?
- How does management demonstrate its commitment to the strategic plan?
- How does management demonstrate its commitment to plan implementation?

What influence does the strategic plan have upon...?

- Client selection, project selection, organizational structure and staffing, training and personnel development
- Measurement and monitoring of key organizational performance indicators

Monitoring

- How often is progress monitored? Who monitors progress? How is it monitored?
- What is corporate's involvement?
- How often are strategic issues discussed? When/where? By whom?
- Is management performance evaluation (& compensation) linked to plan objectives? How?

General Questions

Planning Success

- To what extent does strategic planning facilitate long-term success?
- Is your planning process successful? Why or why not?
- What are the most important elements for successful plan development & plan implementation?

Plan Commitment

- How committed is senior management to strategic planning?
- How important is senior management commitment? How is management commitment conveyed to the organization?
- How committed is your 'organization' to the strategic planning and implementation effort? Why?
- How do you increase organizational commitment?

Planning Process

- Do you have any anticipated, or needed, changes to your plan development or implementation process?
- What are the most essential elements of the development & implementation process?

Benefits

- What are the most significant benefits of strategic planning?

Appendix F – Solicitation for Interview Participation

Date

«FIRSTNAME» «MI» «LAST_NAME» «SUFFIX», «TITLE»
«COMPANY»
«ADDRESS»
«CITY», «ST» «ZIP»

Re: Strategic Planning Study

Dear «PREFIX» «LAST_NAME»,

I trust that by now you have had an opportunity to review the summary findings and your company's comparative analysis from the Strategic Planning study you participated in earlier this year. Your financial results were among the best of all participants – Congratulations. I sincerely appreciated your participation in the initial phase of this study and I hope that the feedback provided thus far is of some benefit to you and your organization.

I am now in the midst of completing the final stage of this study. This phase involves interviewing the 'top performers' to gain a better insight into your planning and implementation process. The objective is to identify the distinctive actions of the 'top performers' with the ultimate goal of developing a benchmarking tool for strategic plan development and implementation - a tool that would hopefully be of benefit to you and your organization. To reach that objective I need your continued input and support.

I know your time is scarce, so I suggest that possibly the best way to obtain your input would be via a telephone conversation at a time convenient to you. If you would like, I could send an outline of the subjects of interest prior to the interview. The time required for the interview would be approximately one hour. However, if that total time commitment is not possible, whatever time you could devote would be appreciated. If at all possible, the interview needs to be conducted sometime during the next 45 days.

Please be assured that your input will be kept confidential. Similar to the initial phase of this study, you will be furnished with an aggregate summary of the findings. Participation in this phase should provide you an excellent opportunity to obtain insight into the planning and implementation process of the entire class of 'top performers'.

Please give this request your valued consideration. Your participation is needed and I sincerely believe that the results will be worth the investment of your time. I will be contacting you (or your assistant if you prefer) to confirm your support and arrange a time for the interview.

Thank you for your past support of this study. I look forward to receiving your input during this final phase.

Respectfully,

Dennis C. Bausman
PhD Candidate

PS I *promise* that this is the last request I'll make of your time for this effort.